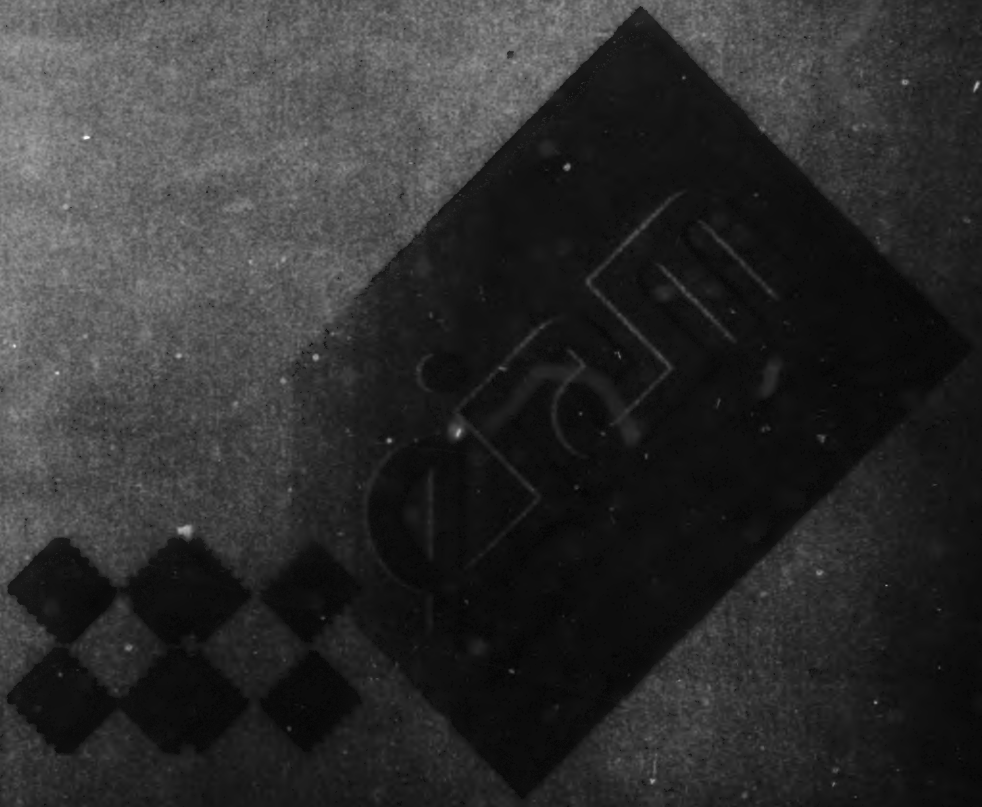
MANITOBA DIRECTORY OF ELECTRONICS CAPABILITIES



92-07384/

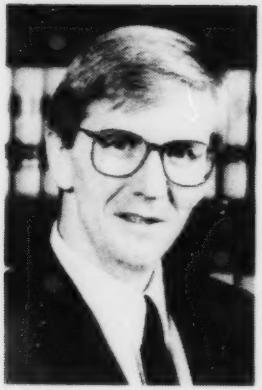
For the purposes of inclusion, we did our best to contact as many organizations as possible. However, it has to be noted that this Directory is not exhaustive and admittedly, some potential participants may have been missed. If your organization is not listed herein, and is involved in the electronics industry or related services in Manitoba, please send us your profile by completing the form on pages iv and v so that it may be included in the next printing.

To order additional copies
Contact:

Electronics Industry Association of Manitoba
414 - 435 Ellice Avenue
Winnipeg, Manitoba
R3B 1Y6
(204) 943 - 7533
FAX#: (204) 943 - 9206

Minister of
Industry, Trade and Tourism

Winnipeg, Manitoba, CANADA
R3C 0V8



March 1992

Dear Reader:

The Government of Manitoba attaches high priority to the development of the information, electronics and telecommunications industry. Therefore, I am pleased to have collaborated with the Electronics Industry Association of Manitoba in the production of the 1992 Directory of Products and Capabilities.

I believe that Manitoba companies can provide a wide range of state-of-the-art products and services at a level competitive with national and international enterprises. The capabilities of the companies who provided information for the production of this directory demonstrate the significant strength and breadth of this industry.

I invite you to consider sourcing the world class resources available to you in Manitoba, when considering the acquisition of products and services aimed at enhancing your productivity and competitiveness. Together, we will be able to build a thriving industry.

Eric Stefanson
Minister

Manitoba

PRESIDENT'S MESSAGE

Dear Reader,

The Electronics Industry Association of Manitoba (EIAM) is pleased to provide you with a copy of our Directory of Capabilities. This directory is being published as a cooperative effort with the Manitoba Software Association (MSA), whose members you will find crosslisted herein. The MSA is publishing a matching Directory under a separate cover. These combined Directories should prove to be a valuable reference source for those wishing to do business, or identify employment opportunities, with the many Electronic Companies and Software Houses in Manitoba.

We would like to thank all the organizations that took the time to respond to our profile request and all the people who contributed to the completion of this Directory. In particular, we wish to thank the Information and Telecommunications Technology Branch - Manitoba Industry, Trade and Tourism without whose generous assistance, this project would not have been possible.

Should you require additional copies of this Directory, the MSA Directory, or further information about the Electronics Industry Association of Manitoba, please contact our Executive Office at 943 - 7533.

Yours truly,
ELECTRONICS INDUSTRY ASSOCIATION OF MANITOBA

Ray Prefontaine

R.L. (Ray) Prefontaine
President

INTRODUCTION

THE ELECTRONICS INDUSTRY IN MANITOBA

The Manitoba electronics and software industry is as diverse in sizes of operation as it is in the variety of products and services offered. The industry consists of a wide range of local, national and multi-national organizations who design, manufacture and service their clients from a Manitoba base. However, it is the small and medium sized enterprises who make up the vast majority of the industry.

The industry has reported annual sales in excess of $300 million and employs over 2000 skilled technicians and professionals. This represents some 5% of the total manufacturing activity in the province.

Manitoba excels in providing attractive key site location requirements, such as good labour relations, excellent transportation and communications, a highly skilled and diversified work force, attractive real estate costs, research and development facilities, and a way of life that is at par with other large metropolitan centres. Add to this a diversified economic base which provides numerous access opportunities for electronics and software firms in agriculture, mining, transportation, clothing, aerospace, light machinery, finance, insurance, medical research, health care, and others. Manitoba companies are now marketing their expertise and products around the world, and have developed "market niches" as a result of the province's diversified economic base.

A number of advanced research laboratories in electronics, manufacturing, and biotechnology are providing a strong foundation in support of this sector. Support is also available from the Province's major utilities such as Manitoba Telephone System and Manitoba Hydro. These utilities play a vital role in providing a local test bed for many of our companies.

Advanced educational centres provide the key resources in support of the electronics and software sectors. Manitoba's universities provide a steady stream of graduates in science, math, and engineering - industrial, mechanical, electrical and computer sciences. Colleges and technical training centres also contribute by providing many diverse technology, industrial and trade programs which can be tailored to meet specific needs.

Federal and Provincial government programs provide a wide range of industrial development and support mechanisms for new and existing firms, covering research, new business start-up assistance, product development, export development, low interest financing, human resource development, and venture capital.

ELECTRONICS INDUSTRY ASSOCIATION OF MANITOBA

EIAM was established in 1983 with the mission "To develop and maintain an association which will assist in the promotion and growth of the electronics manufacturing, distribution, and software industry in the Province of Manitoba."

EIAM has in excess of 100 members representing a broad cross-section of the electronics and software related industries ranging from entrepreneurial start-ups to large multi-national corporations.

Recognizing that Manitoba possesses many attributes which are conducive to the beginnings, sustenance, and growth of the electronics industry, the EIAM constantly strives to work for the benefit of its membership through the development of innovative programs. At its nucleus, the EIAM has a number of committees which ensure that the overall mandate of the association is fulfilled, and that the membership concerns and interests continue to be well represented. These committees deliver services and programs in the areas of communications, government liaison, programming, human resource planning, membership and finance. The EIAM also maintains close ties with the Manitoba Software Association (MSA), in order to develop a broad base for the future of the industry in general.

MANITOBA SOFTWARE INDUSTRY DIRECTORY

Complete profiles of the companies listed below are contained in the Manitoba Software Directory of Capabilities. Please contact Manitoba Software Association to order a copy.

A H COMPUTER SYSTEMS LTD.
A-PLUS MANAGEMENT SYSTEMS
ABIES MEDICAL INFORMATION
ALPHA INFORMATION SYSTEMS
ANDERSON DATA & DEVELOPMENT
APPLE CANADA INC.
ARC+CADD
AUTOMATED DESIGN SYSTEMS LTD.
BARCODE SYSTEMS
BOWMAN MICRO-SOFTWARE LTD.
BRANT COMPUTER SERVICES LTD.
BUSINESS BYTES
JIM CAMERON
CANPAY COMPUTER SOFTWARE LTD.
THE CANSOFT CONSULTING GROUP
CENTRAL GRAPHICS LTD.
CHARTERSOFT
CIRLOG CORPORATION
CISER SYTEMS
CLASS SOFTWARE
CLINICOM INTERNATIONAL SERVICES INC.
COMPU-TRAIN
COMPUCLEAN
COMPUTER COUNSEL INC.
CREATIVE SOFTWARE
CSB SYSTEMS LTD.
CYBERSHARE LTD.
CYBAX SYSTEMS
DATAAID SYSTEMS INC.
DRH MICRO SOFTWARE INC.
ERNST & YOUNG CONSULTANTS
ESC ENTERPRISES
EVANS SOFTWARE
EVOY & ASSOCIATES
EXPERT SYSTEMS INC.
GREBAR SYSTEMS INC.
HEALTH PROFESSIONAL SOFTWARE LTD.
HOLT CREATIVE COMPUTING INC.
HOMESTEAD COMPUTER SERVICES LTD.
IAN SCHAEFER COMPUTER CONSULTING
INFOCORP COMPUTER SOLUTIONS LTD.
INFOTECH INC.
INTEGRATED ENGINEERING
ISM INFORMATION SYSTEMS MANAGEMENT CORP.
JJ. CONKLIN COMMUNICATIONS
LAZAR-FARE MEDIA SERVICES LTD.
LEGAL DATA RESOURCES CORPORATION
LGS GROUP INC.
MENDATE SYSTEMS LTD.
MAXIM COMPUTER SYSTEMS
MEDICAL BILLING DATA SERVICES
MICRO MANAGEMENT SYSTEMS LTD.
MIM MANAGEMENT SYSTEMS INC.
PAN AMERICAN SOLUTIONS INC.
PASSCARD SYSTEMS INC.
GROUPE PERSPECTIVE GROUP
PIXSOFT INC.
PRICE WATERHOUSE
PROBE INDUSTRIAL ELECTRONICS
PROSYSTEMS COMPUTER CONSULTING
QUANTIC LABORATORIES INC.
RESCOM VENTURES INC.
RUTH COMPUTER SYSTEMS
SAFE SOFT SYSTEMS INC.
SLM SOFTWARE INC.
SOFTRENT
SPECTRA COMPUTER SYSTEMS LTD.
STATIONMASTER
SUB ROSA INC.
SYNNS MANAGEMENT LTD.
SLH SYSTEMHOUSE LTD.
TALON CONSULTING INC.
TEACHER'S CHOICE PRODUCTIONS
TECH-WRITE DOCUMENTING
TECHMARK INC.
TKM SOFTWARE
TOTAL SOFTWARE
TREND-TECH SOFTWARE SOLUTIONS
TSI SOFTWARE LTD.
TUXEDO SYSTEMS GROUP
VETBASE PLUS SOFTWARE
VISACOM MARKETING SERVICES LTD.
VROOMAN & ASSOCIATES INC.

In order for us to maintain the accuracy of this Directory, please use this form to indicate any changes.

ELECTRONICS INDUSTRY ASSOCIATION OF MANITOBA
414 - 435 Ellice Avenue
Winnipeg, Manitoba R3B 1Y6
Phone (204) 943 - 7533 Fax (204) 943 - 9206

PROFILE

COMPANY NAME:_____
CONTACT/TITLE: _____
ADDRESS: _____
CITY/PROVINCE: _____
POSTAL CODE: _____
TELEPHONE #: _____ FAX #: _____

EMPLOYEES (#):_____
HISTORY: (25 - 100 words)
_____
_____

CAPABILITIES: (250 words maximum)
_____
_____
_____
_____

PRODUCTS AND SERVICES: A listing of any unique equipment or processes
_____
_____
_____

MARKET: List of major market areas, inclusive of local, national and international.

_____

_____

Please mark the categories that best describe your firm.

CATEGORIES

__1. ORIGINAL EQUIPMENT MANUFACTURING AND TESTING

__2. COMPONENTS, DEVICES AND INSTRUMENTATION SUPPLIERS

__3. TELECOMMUNICATIONS EQUIPMENT AND SERVICES

__4. SOFTWARE SYSTEMS AND DEVELOPMENT

__5. CONSULTING AND SYSTEMS INTEGRATORS

__6. COMPUTER SYSTEMS SUPPLIERS

__7. INDUSTRIAL RESEARCH/EDUCATION AND TRAINING

__8. INDUSTRIAL MAINTENANCE AND SERVICING

__9. VENTURE CAPITAL AND FINANCING

__10. INDUSTRY/PROFESSIONAL ASSOCIATIONS

__11. BUSINESS SUPPORT SERVICES

__12. GOVERNMENT AND UTILITIES

CATEGORIES

1. ORIGINAL EQUIPMENT MANUFACTURING AND TESTING
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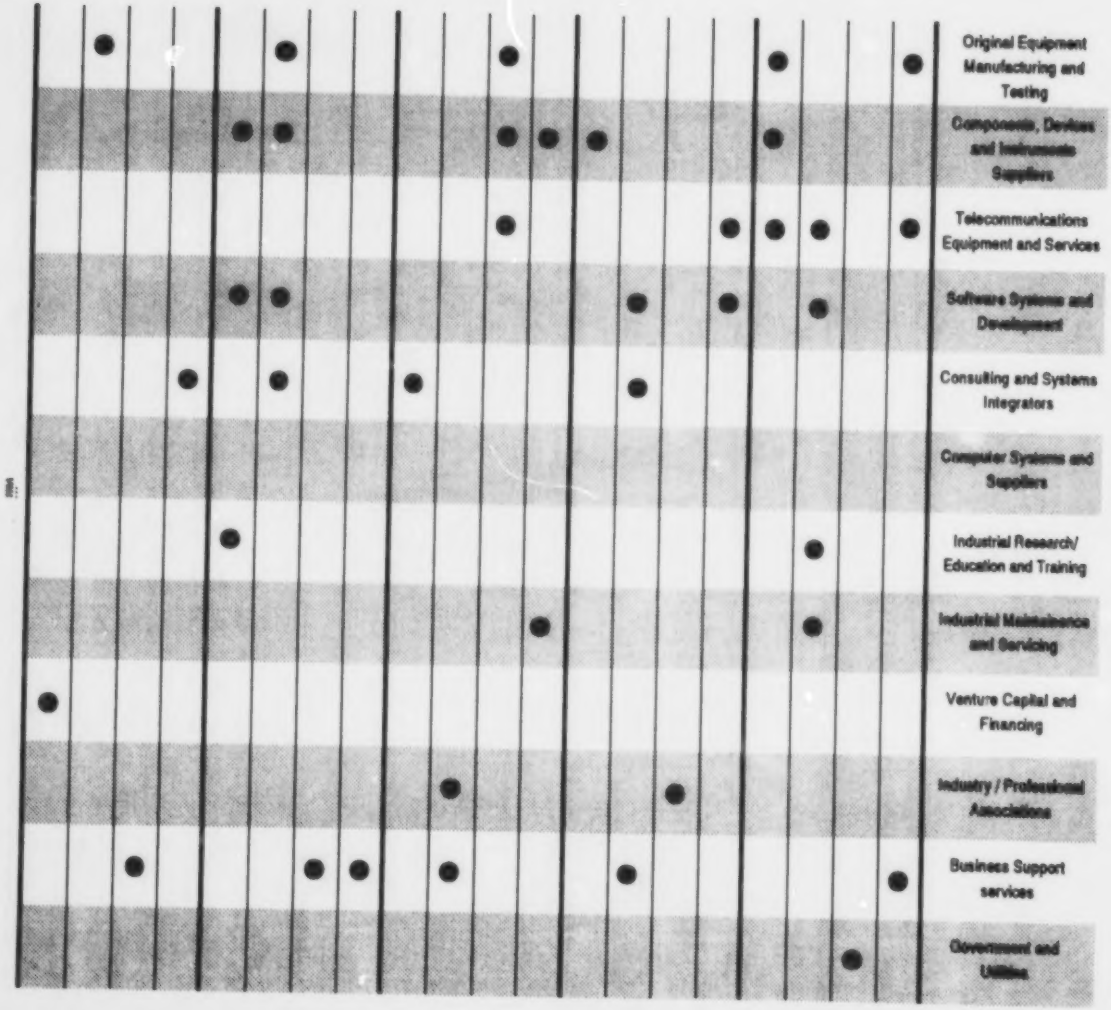
3. TELECOMMUNICATIONS EQUIPMENT AND SERVICES
4. SOFTWARE SYSTEMS AND DEVELOPMENT
5. CONSULTING AND SYSTEMS INTEGRATORS
6. COMPUTER SYSTEMS SUPPLIERS
7. INDUSTRIAL RESEARCH/EDUCATION AND TRAINING
8. INDUSTRIAL MAINTENANCE AND SERVICING
9. VENTURE CAPITAL AND FINANCING
10. INDUSTRY/PROFESSIONAL ASSOCIATIONS
11. BUSINESS SUPPORT SERVICES
12. GOVERNMENT AND UTILITIES

ELECTRONICS INDUSTRY MATRIX OF CAPABILITIES

COMPANY:	TELEPHONE:	FAX:	PAGE:	E.I.A.M. MEMBERSHIP
ADT CANADA INC.	949-1400	775-6800	1	
AECL RESEARCH, WHITESHELL LABORATORIES	1-753-2311	1-753-[illegible]	2	[illegible]
AH COMPUTER SYSTEMS LTD.	831-1303	832-6873	3	[illegible]
ALCATEL CANADA WIRE INC.	452-4312	475-4877	4	[illegible]
ANALYTIC SOFTWARE PROFESSIONALS	888-8316	883-0804	5	
ARMED FORCES COMMUNICATIONS & ELECTRONICS ASSOC. CANADA	833-5888 / 6607	833-6549	6	
ARTHUR ANDERSEN & COMPANY	942-6541	956-0830	7	[illegible]
ASEA BROWN BOVERI CANADA INC.	477-0233	475-1391	8	[illegible]
BISON ELECTRONICS LTD.	837-8068	885-0886	8	
BRISTOL AEROSPACE LIMITED	775-8331	885-3195	9	[illegible]
CANADIAN STANDARDS ASSOCIATION	632-6633	632-1796	10	[illegible]
CAN-CALL	256-4632		10	
CAN-PAY COMPUTER SOFTWARE LTD.	254-4726	254-0806	11	
CHUBB SECURITY SYSTEMS	235-1859	237-1715	12	
CIRLOG CORPORATION	949-0519	947-1397	13	[illegible]
CISER SYSTEMS CORP	775-5761	775-5768	14	[illegible]
CLINICOM INTERNATIONAL (A DIVISION OF CHI SYSTEMS INC.)	942-5335	944-8110	15	
COMCHEQ SERVICES LIMITED	947-9400	956-4126	16	
CONVIRON	786-6451	786-7736	17	[illegible]
COOPERS & LYBRAND CONSULTING GROUP	946-2347	944-1020	17	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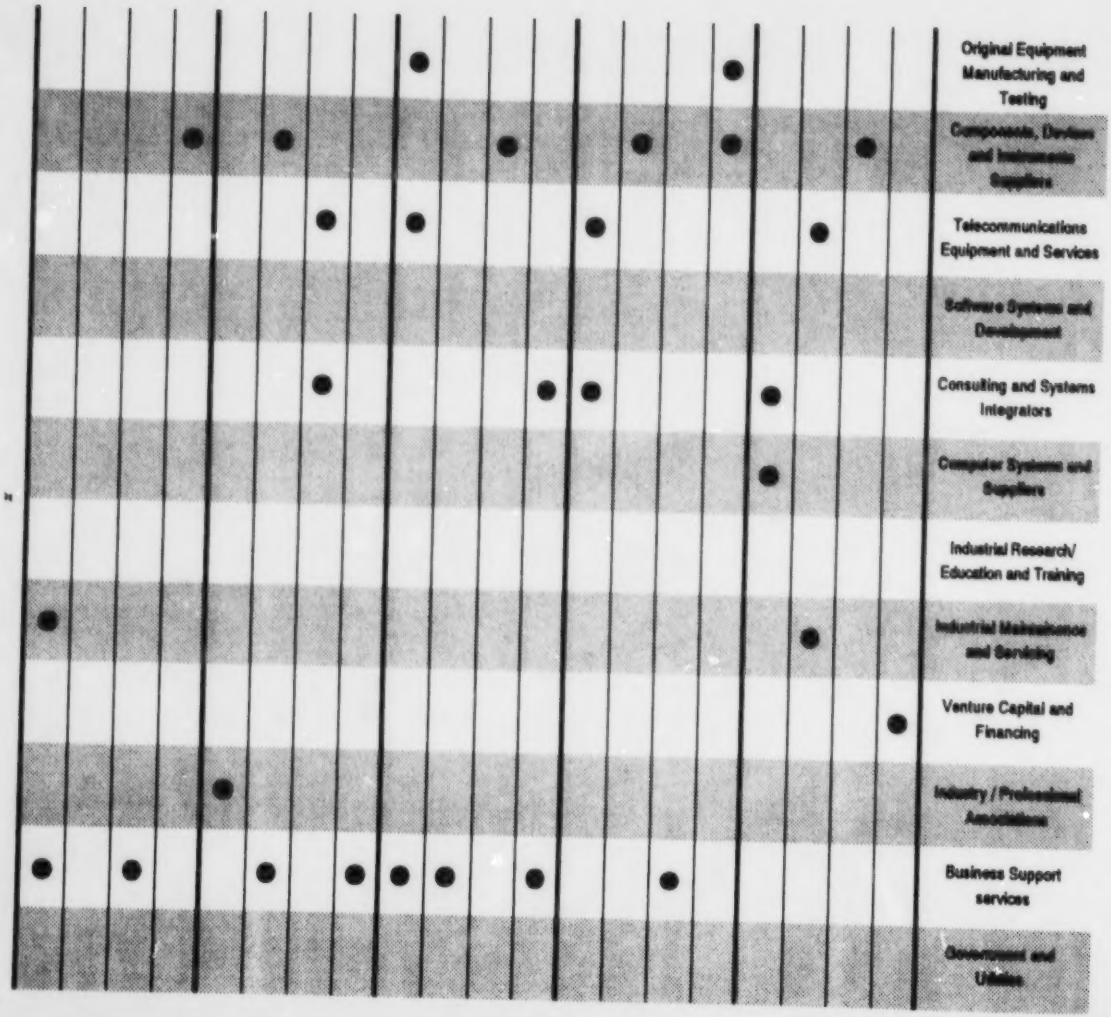
COMPANY:	TELEPHONE:	FAX:	PAGE:	E.I.A.M. MEMBERSHIP
CREST CIRCUIT CO. LTD.	269-4362	269-2991	18	[illegible]
CREST CIRCUIT CO. LTD.	269-4362	269-2991	18	
CROTELCO CANADA INC.	786-5756	783-7383	18	
CSB SYSTEMS LTD.	947-2569	947-3096	19	
CSI MANUFACTURING AND DISTRIBUTION INC.	222-3028	222-0846	20	[illegible]
DARRACH BUSINESS SYSTEMS LTD.	832-1507	888-1634	21	
DAVETEK MARKETING INC.	(604) 430-3680	430-5490	22	[illegible]
D.E.M. ALLEN & ASSOCIATES LTD.	889-9202	831-4880	22	
DELOITTE & TOUCHE	942-0051	947-5380	23	[illegible]
DESKIN INC.	(416) 475-1412	474-0105	24	
DIAL DATA SERVICES INC.	956-1625	943-5380	25	
DIVERSITY PRODUCTS LTD.	453-0573	837-6682	26	[illegible]
D.J. MEDIA ENTERPRISES INC.	786-7422	775-3730	27	
EB SYSTEMS LIMITED	489-7467	489-7471	28	[illegible]
ELECTRO TRAC CIRCUITS LTD.	694-4000	694-7018	29	[illegible]
ELECTRONICS INDUSTRY ASSOCIATION OF MANITOBA	943-7533	943-5808	30	
ELECTRO SONIC INC.	783-3105	774-7288	31	[illegible]
EVERT COMMUNICATIONS LTD.	(613) 728-4521	728-5996	32	
FIELDS INDUSTRIAL ELECTRONICS -				
A DIVISION OF FIRE-TECH SYSTEMS INC.	452-7422	284-5875	33	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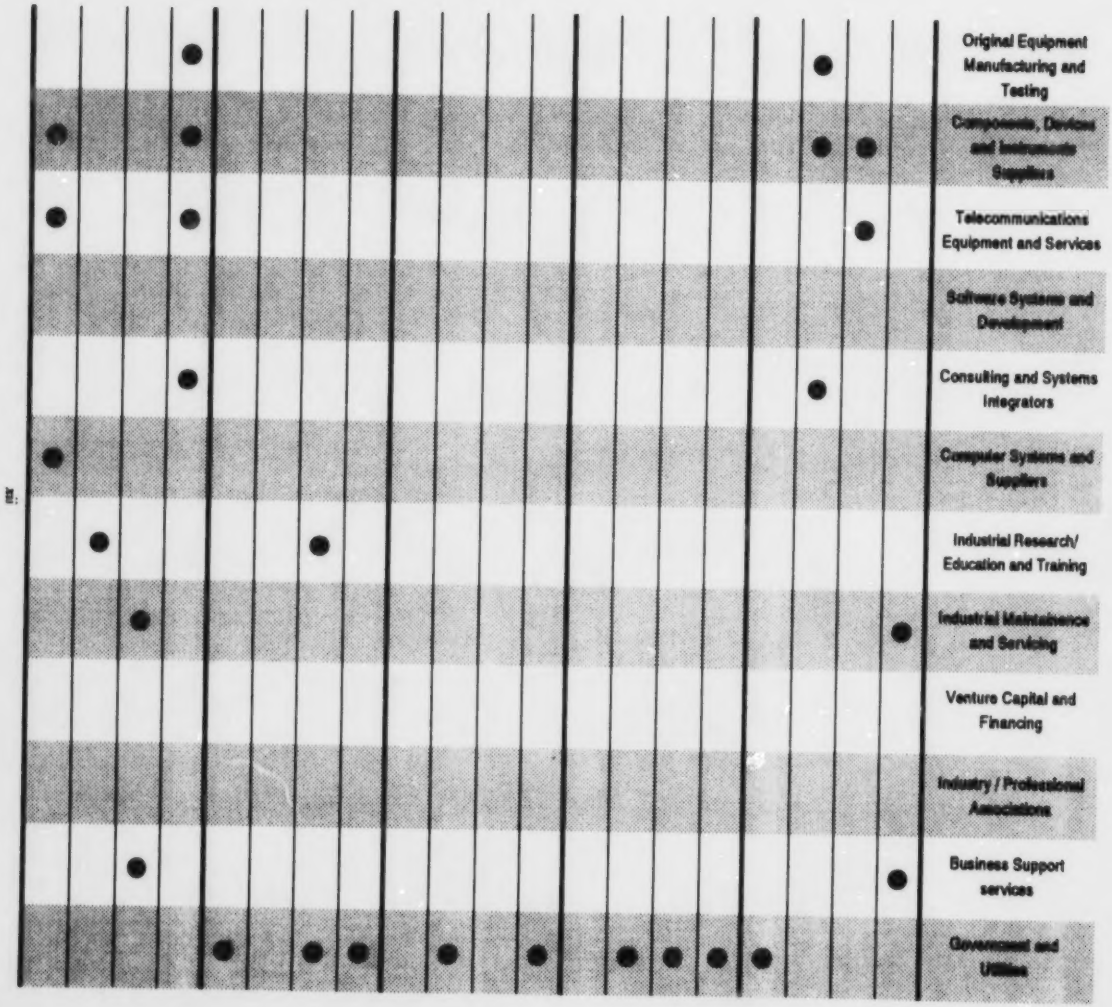
COMPANY:	TELEPHONE:	FAX:	PAGE:	E.I.A.M. MEMBERSHIP
FIRE-TECH SYSTEMS INC.	452-1772	[illegible]	34	
GANDALF CANADA	947-3616	[illegible]	35	
GENERAL ELECTRIC AEROSPACE	989-6700	[illegible]	36	[illegible]
GOVERNMENT OF CANADA DEPARTMENT OF COMMUNICATIONS	983-2771	[illegible]	37	[illegible]
GOVERNMENT OF CANADA EMPLOYMENT AND IMMIGRATION	983-3750	[illegible]	37	[illegible]
GOVERNMENT OF CANADA - INDUSTRY SCIENCE & TECHNOLOGY CANADA	983-3662	[illegible]	38	[illegible]
GOVERNMENT OF CANADA WESTERN ECONOMIC DIVERSIFICATION	983-4472	[illegible]	39	[illegible]
GOVERNMENT OF MANITOBA - INDUSTRY, TRADE & TOURISM -				
INFORMATION & TELECOMMUNICATIONS INDUSTRY BRANCH	945-5287	[illegible]	40	[illegible]
GOVERNMENT OF MANITOBA -				
INDUSTRY, TRADE & TOURISM, SECTORAL DEVELOPMENT	945-8234	[illegible]	40	[illegible]
GOVERNMENT OF MANITOBA -				
INDUSTRY, TRADE & TOURISM, TRADE BRANCH	945-1125	[illegible]	41	
GOVERNMENT OF MANITOBA TELECOMMUNICATIONS POLICY OFFICE	945-3743	[illegible]	41	[illegible]
GOVERNMENT OF MANITOBA - WORKFORCE 2000				
- MANITOBA EDUCATION & TRAINING	945-2000	[illegible]	42	
GPT (CANADA) GEC PLESSEY TELECOMMUNICATIONS (CANADA) LTD.	942-7221	[illegible]	43	[illegible]
HALLCRAFT ELECTRONICS LTD.	786-5846	[illegible]	44	
HERZING CAREER COLLEGE	775-8175	[illegible]	45	[illegible]
HEWLETT-PACKARD (CANADA) LTD.	694-2777	[illegible]	46	[illegible]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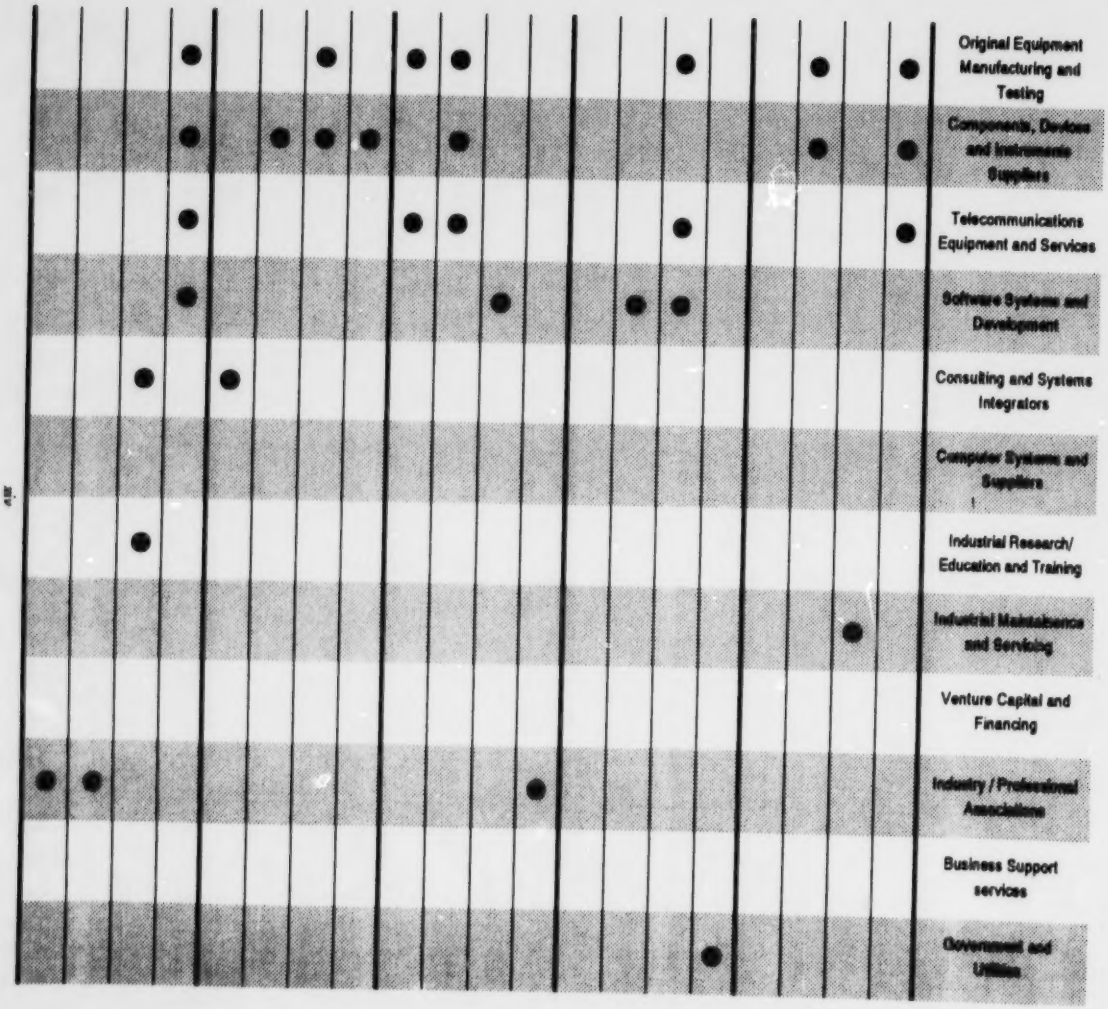
COMPANY:	TELEPHONE:	FAX:	PAGE:	E.I.A.M. MEMBERSHIP
HUGHES AIRCRAFT OF CANADA LIMITED WINNIPEG DIVISION	949-2400	[illegible]	47	[illegible]
IES (INDUSTRIAL ELECTRONICS SERVICES)	957-1699		48	
INDUSPAC WEST INC.	832-0544	[illegible]	49	
INDUSTRICAL TECHNOLOGY CENTRE, AN OPERATION OF				
THE ECONOMIC AND INNOVATION TECHNOLOGY COUNCIL (EITC)	945-6000	[illegible]	50	[illegible]
INFOMAGNETICS TECHNOLOGIES CORP.	945-8806	[illegible]	50	[illegible]
INFOTECH INC.	885-2558	[illegible]	51	[illegible]
INSTITUTE OF CERTIFIED				
MANAGEMENT CONSULTANTS OF MANITOBA (ICMCM)	942-8678	[illegible]	52	
INTEGRATED ENGINEERING SOFTWARE	942-5636	[illegible]	53	
INVENTRONICS LIMITED	1-728-2001	[illegible]	54	
IRIS SYSTEMS INC.	947-9064	[illegible]	55	[illegible]
KELTEK PRINTED CIRCUIT	694-0905		56	
KRAUS INDUSTRIES LTD.	224-1616	[illegible]	57	[illegible]
KVA DYNAMO INC.	237-4490	[illegible]	58	
LGS GROUP INC.	947-3975	[illegible]	59	[illegible]
LINEAR SYSTEMS LTD.	783-2228	[illegible]	60	[illegible]
LINNET GRAPHICS INTERNATIONAL INC.	957-7566	[illegible]	61	
MANITOBA AEROSPACE GROUP	945-2397	[illegible]	62	
MANITOBA GOVERNMENT EMPLOYEES ASSOCIATION	982-6432	[illegible]	63	[illegible]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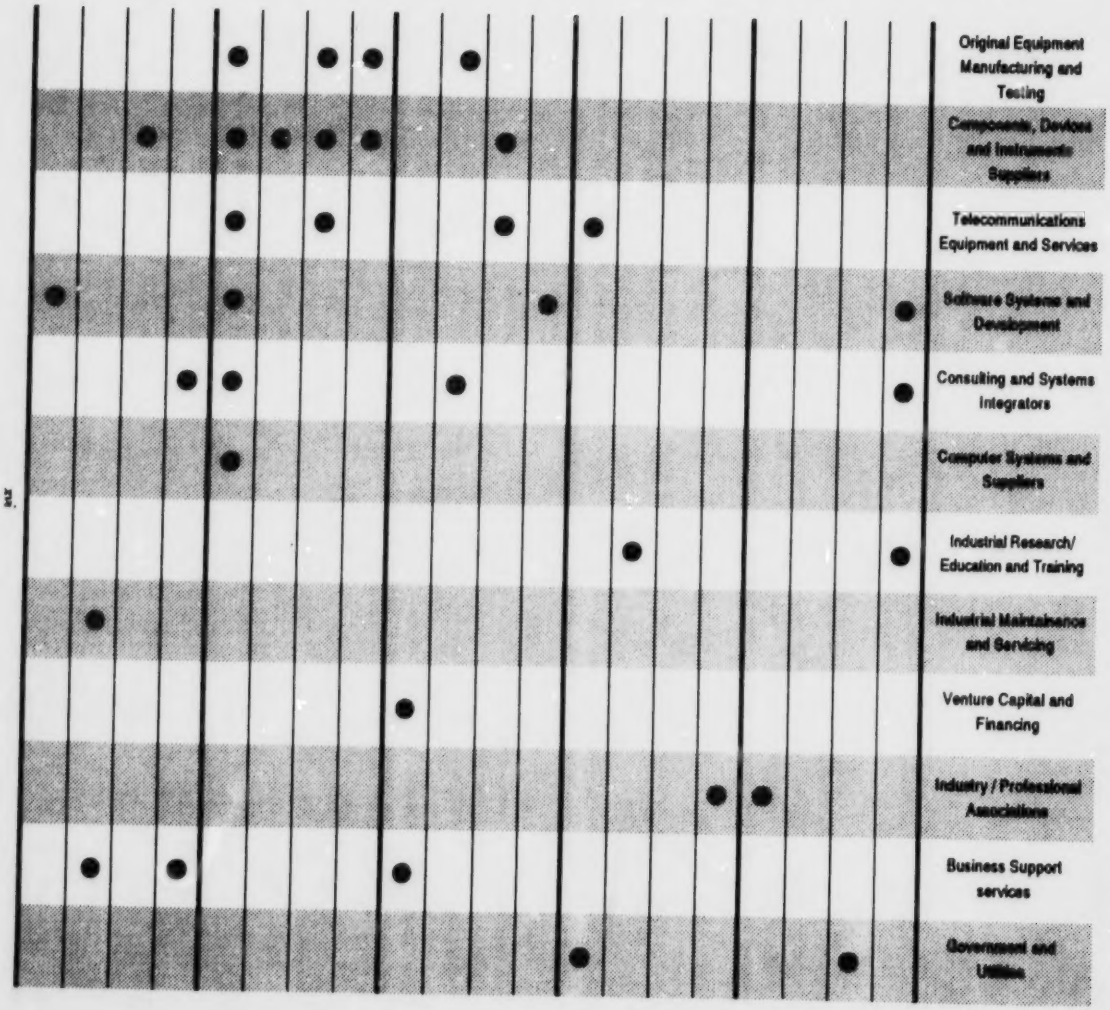
COMPANY:	TELEPHONE:	FAX:	PAGE:	E.I.A.M. MEMBERSHIP
MANITOBA HVDC RESEARCH CENTRE	284-8240	453-8374	64	
MANITOBA HYDRO	474-3465	474-4864	65	
MANITOBA SOCIETY OF CERTIFIED ENGINEERING TECHNICIANS				
AND TECHNOLOGISTS INC. (MANSCETT)	885-2788	831-6170	66	
MANITOBA SOFTWARE ASSOCIATION	944-8868	943-8306	67	
SEE PAGE iii FOR SOFTWARE COMPANIES				
MANITOBA TECHNICAL TRAINING CENTRE	942-1773	943-1134	67	
MANITOBA TELEPHONE SYSTEM	941-7207	284-0827	68	
MAXIM COMPUTER SYSTEMS	453-7199	453-7122	69	
MITEL CORPORATION	957-1400	967-1218	70	
MONAC INTERNATIONAL CORPORATION	943-6797	949-9021	71	
NATIONAL BANK LEASING INC.	946-1660	946-1662	72	
NORSCAN INSTRUMENTS LTD.	233-9138	233-9186	72	
NORTHERN TELECOM	633-7200	631-7280	73	
OLAFSON AGENCY	775-3354	694-7343	73	
PARAMAX SYSTEMS CANADA	831-3100	831-7281	74	
PEAT MARWICK STEVENSON & KELLOGG	944-1014	943-4713	75	
PRECISION METALCRAFT INC.	694-7200	694-8183	76	
PROBE INDUSTRIAL ELECTRONICS LTD.	885-9320	889-7881	77	
QUANTIC LABORATORIES INC.	942-4000	957-1138	78	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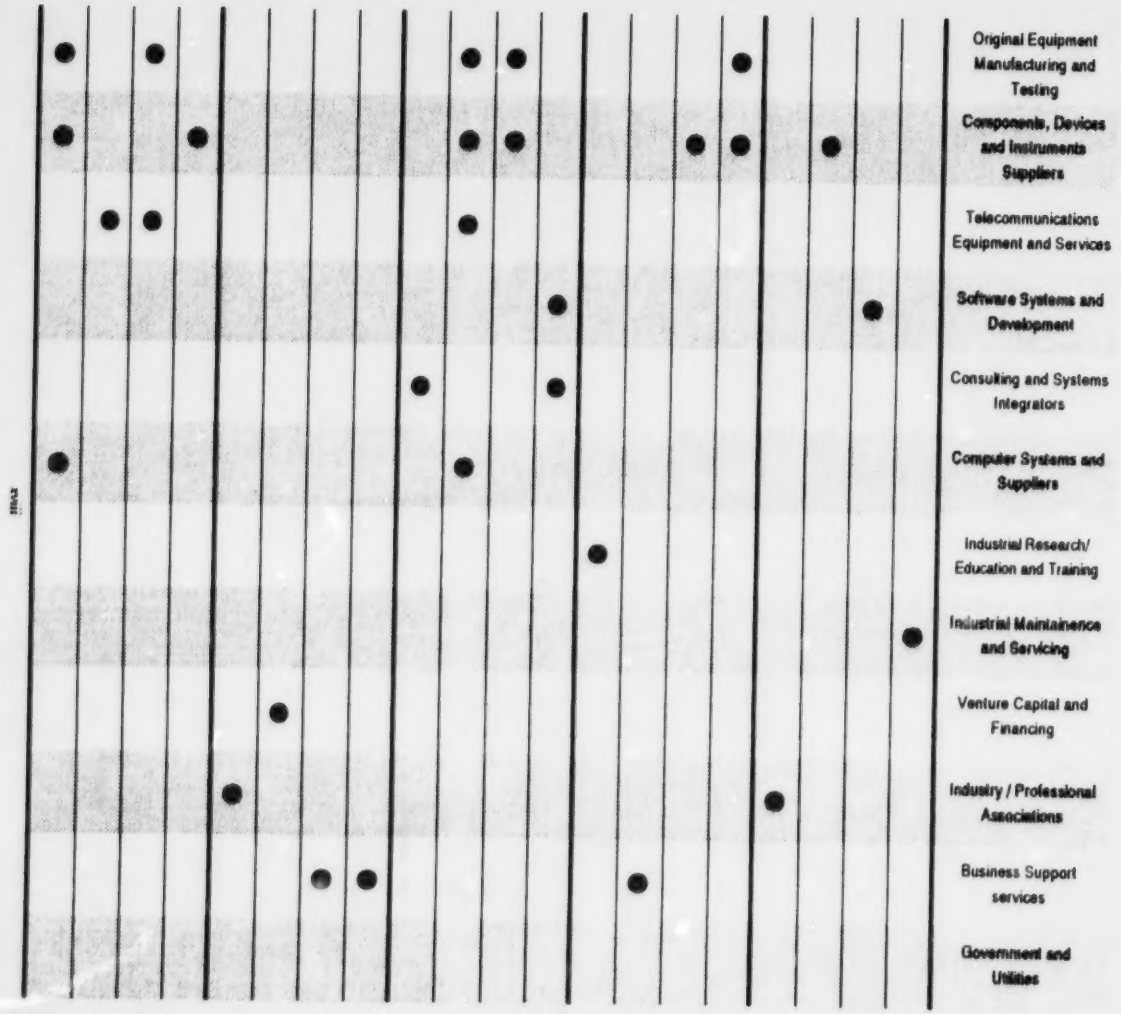
COMPANY	TELEPHONE	FAX	PAGE	E.I.A.M. MEMBERSHIP
RED RIVER COMMUNITY COLLEGE	632-2272	632-5075	79	✓
RESCOM	783-4614	783-0021	80	✓
ROSS ELECTRONIC SUPPLY LTD.	783-2088	783-0819	81	
SCIENCE/TECHNOLOGY AWARENESS NETWORK INC.	943-8482	943-6205	82	
S.D.S. TECHNICAL DEVICES LTD.	589-7507	582-5964	83	
SINCLAIR RADIO LABORATORIES LTD.	783-9772	775-9472	84	
SOFTWRITE DOCUMENTING	1-755-3493	1-755-3493	85	
SOUTH WINNIPEG TECHNICAL CENTRE	989-6509	488-4152	86	✓
SYSTEMHOUSE	944-9166	943-2765	87	
TECHNICAL PRODUCTS INTERNATIONAL	669-6690	661-8657	88	✓
TELLIER ELECTRONICS LTD.	774-1741	783-3185	89	✓
TESHMONT CONSULTANTS INC.	284-8100	475-4601	90	
THE COMPUTER PAPER	949-7720	949-7721	91	
THE COMPUTER POST	947-9766	947-9767	92	
THE TORONTO DOMINION BANK	988-2900	943-7957	93	✓
THE WINNIPEG CHAMBER OF COMMERCE	944-8484	944-8492	94	
TIP TOP ELECTRONIC SUPPLY	786-7788	786-8530	95	
UBITREX CORPORATION	942-2992	942-3001	96	✓
UNITEL COMMUNICATIONS	946-3582	946-3843	96	
UNISYS CANADA INC. PERIPHERAL PRODUCTS DIVISION	257-9100	257-0540	97	✓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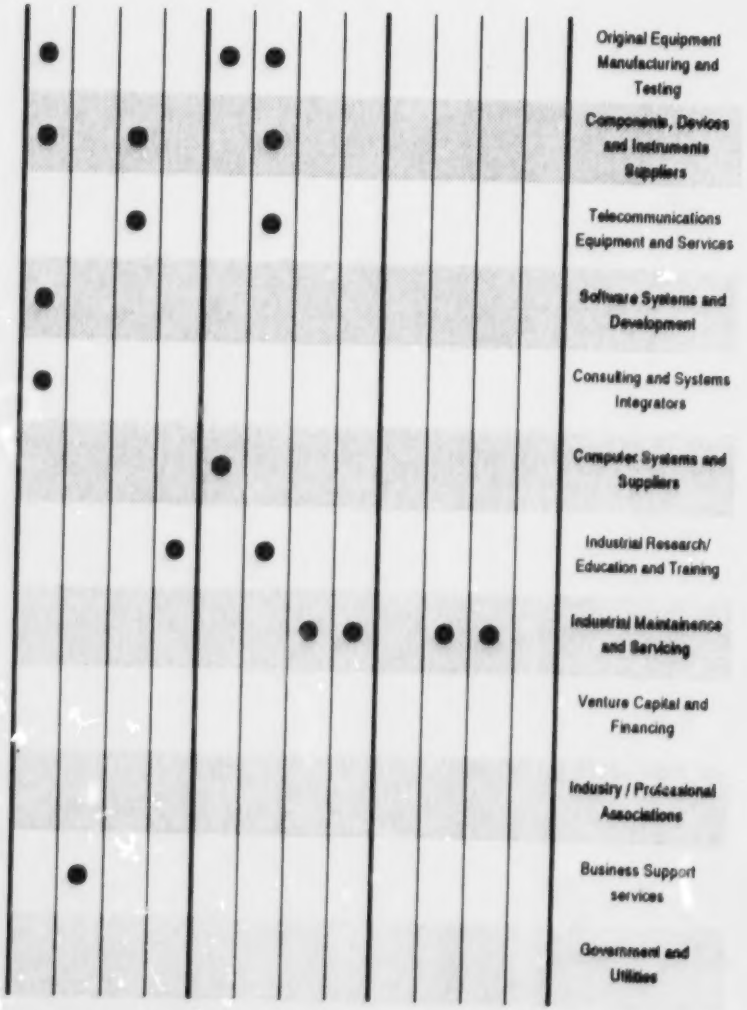
Business Support services
Government and Utilities

ELECTRONICS INDUSTRY MATRIX OF CAPABILITIES

COMPANY:	TELEPHONE:	FAX:	PAGE	E.I.A.M MEMBERSHIP
UNIVERSITY OF MANITOBA -				
ELECTRICAL & COMPUTER ENGINEERING DEPARTMENT	474-9603	261-4639	98	☒
UNIVERSITY OF MANITOBA - FACULTY OF ENGINEERING	474-9806	275-3773	99	
UNIVERSITY OF MANITOBA -				
INSTITUTE FOR TECHNOLOGICAL DEVELOPMENT	474-6200	261-3476	100	☒
UNIVERSITY OF MANITOBA SCIENCE SHOPS	474-9410	261-7548	101	
VANSCO ELECTRONICS LTD.	452-6776	452-7156	102	☒
VISION ENGINEERING RESEARCH GROUP	942-2337	943-9206	103	
WANG IMAGING CENTRE	942-6420	942-2636	104	☒
WESTERN DATACOM INC.	832-7931	832-7691	104	
WINNIPEG 2000 - WINNIPEG ECONOMIC DEVELOPMENT CORPORATION	944-2000	956-2615	105	☒
WINTECH INC.	1-326-2688	1-326-6510	105	☒

Categorization of individual companies and services was done by an ad-hoc committee and may not be complete and accurately reflect the capabilities of the companies and services listed. Please contact the companies and services of interest to obtain more information.


Original Equipment Manufacturing and Testing
Components, Devices and Instruments Suppliers
Telecommunications Equipment and Services
Software Systems and Development
Consulting and Systems Integrators
Computer Systems and Suppliers
Industrial Research/ Education and Training
Industrial Maintainence and Servicing
Venture Capital and Financing
Industry / Professional Associations
Business Support services
Government and Utilities

ADT CANADA INC.

303 Balmoral Street
Winnipeg, Manitoba R3C 4A8

Telephone #: (204) 949-1400
Fax #: (204) 775-6800

CONTACTS: Barry Perrin, District General Manager
Brent Woodland, District Service Manager

EMPLOYEES: 11-30

HISTORY:
With over 100 years experience in the electronic protection business, ADT designs, manufactures, installs,and maintains its systems to protect life and property against a wide range of loss-producing hazards including fire, burglary, and other incidents. Most of these services are provided through alarm connections to ADT's Central Stations in Canada, the U.S. and Europe.

CAPABILITIES:
ADT protection systems and devices provide maximum effectiveness and reliability resulting in greater security with fewer problems for the protected customer. ADT sells service, not hardware, and for that reason, we design our equipment to be self supervising, easily tested and reliable under a wide range of operating conditions.
Regardless of the needs of the individual who may require security coverage, or just general inquiries, ADT Security Systems can surely design a security system to do the job.

PRODUCTS AND SERVICES:
ADT has developed a series of microprocessor based controls that employ the latest scientific technological advances for security systems.

MARKET:
The Winnipeg branch services all of Manitoba and east to Thunder Bay, Ontario; our other branches service to the east and west respectively. Services are provided through alarm system connections to ADT's 14 Central Stations in Canada and 132 in the United States and Western Europe.

AECL RESEARCH, WHITESHELL LABORATORIES

Pinawa, Manitoba R0E 1L0
Telephone #: (204) 753-2311
Fax #: (204) 753-2455

CONTACT: Andrzej K. Kosciuk, Senior Electronic Design Engineer
EMPLOYEES: Over 100

HISTORY:
Whiteshell Laboratories (WL) are situated on a 4000-hectare site along the Winnipeg River near Pinawa, Manitoba. Construction of WL began in 1961 along with townsite of Pinawa. The first employees began arriving from WL sister centre in Chalk River, Ontario in July, 1963.

CAPABILITIES:
WL carries out research and development on Nuclear Reactor Safety and Nuclear Fuel Waste Management. Whiteshell Laboratories are part of a larger company, AECL Research, which developed the CANDU Reactor - Canada's unique and highly successful nuclear-electric generating system.

PRODUCTS AND SERVICES:
Slowpoke Nuclear Reactor, accelerator facility, underground research laboratory and hot cell facility.

MARKET:
Utility companies in Canada, Korea, Argentina and Romania.

A H COMPUTER SYSTEMS LTD.

201-2621 Portage Avenue
Winnipeg, Manitoba R3J 0P7

Telephone #: (204) 831-1303
Fax #: (204) 832-6873

CONTACTS: Patrick Binns, Vice President
Andrew Hallonquist, President

EMPLOYEES: 1 - 10

HISTORY:

A H Computer Systems started operations in 1986 developing data base software applications for the medical market. Our software technology incorporates the "C++" programming environment providing an excellent base for product development and contract work. A H Computer Systems is a 100% Canadian owned private company based in Winnipeg.

CAPABILITIES:

A H Computer Systems' technical department provides engineering and software development services for contract work. Work with MS-DOS and QNX operating systems offers two networking options to our end users. Our programmers and engineers are fully knowledgeable with the IBM personal computer platform. We are totally committed to multi-user support in the "C" environment. Other services that A H Computer Systems provides include computer sales, training, on-site service, and ongoing software support for our customers.

Core technology in serial communications and the development of Wide Area Networking is an area of particular interest for A H Computer Systems.

PRODUCTS AND SERVICES:

Products:

Rx Data Perfect: A prescription dispensing program for pharmacists.

Medix: An administration program for clinical physicians.

BreakPoint: A Point of sale retail cash management system.

Services:

Programming: Feasibility studies and program development on a contract basis.

MARKET:

Pharmacies, Medical Clinics, Physiotherapy Clinics, Chiropractors, Retail Businesses, Insurance Brokers, and Corporate Communications to branch offices

ALCATEL CANADA WIRE INC.

1397 Buffalo Place
Winnipeg, Manitoba R3T 1L6

Telephone #: (204) 452-4312
Fax #: (204) 475-4877

CONTACT: Rick E. Jaques, P. Eng., Marketing Manager, Communications Group, Transmission Division

EMPLOYEES: Over 100

HISTORY:

It's been more than 80 years since Alcatel Canada Wire, then called Canada Wire and Cable Company Limited, was incorporated. The company's first product was 7-wire, all aluminum cable for the new Hydro Electric Power Commission of Ontario, which coordinated the distribution of hydro power, for the first time, in the province.

By the mid 1920s, Alcatel Canada Wire had expanded its product line and located sales offices and warehouses across Canada. In 1931, the company built a copper rod mill in Montreal East to supply basic conductor material. (Today, the company's Montreal East facility is Canada's largest continuous cast copper rod mill.)

In the 1950s, Alcatel Canada Wire further expanded to a full product range when it established specialized product plants in many parts of the country. Export activity grew, and this, during the past four decades, led to involvement in businesses in several other countries.

NORTH AMERICAN OPERATIONS: ENERGY GROUP - Products:
Utility Products: Control Cable, Service & Transmission Cable, Medium Voltage Power Cable
Distributor Products: Building Wire, Cords & Equipment Wire, Industrial Cable
HIGH VOLTAGE GROUP - Products & Service:
Extra high voltage power cable:
- 69 kV to 345 kV LPOF and Pipe-Type
- 69 kV to 230 kV XLPE
Extra high voltage accessories
Turnkey installations
Contract management
MAGNET WIRE GROUP - Products:
Round & Shaped Magnet Wire - Bare, Enamelled and Wrapped
Continuously Transposed Cable
COMMUNICATIONS GROUP - Products:
Copper Telephone and Electronics Cable
Fibre Optic Cable
Fibre Optic Components, Couplers and Accessories
Fibre Optic Local Area Networks
Fibre Optic Transmission Equipment

MARKETS:

Automotive, Original Equipment Manufacturers, Electronic Industries, Transportation, Military, Academic, Scientific, Government Research and Data Communications, and Utilities.

ANALYTIC SOFTWARE PROFESSIONALS

#10-3475 Portage Avenue
Winnipeg, Manitoba R3K 0X2

Telephone #: (204) 888-8316
Fax #: (204) 783-0604

CONTACT: Des Bean, Prop.
EMPLOYEES: 1-10

HISTORY:
Analytic Software Professionals was established in 1982 to provide contract or joint-venture software development services in the area of: operating system modification and support for special purpose hardware additions, design and development of engineering analysis tools, and communications protocol handler implementations. At the present time it is providing these services to customers throughout Canada.

CAPABILITIES:
Present projects include development of an OS2 LAN Manager based system network server for an industrial control history data acquisition system using the client-server model. Analytic also has extensive experience producing HDLC communications device-drivers for MS-DOS and OS2 operating system environments. It also has developed a preemptive real-time multi-tasking operating system of its own design for use in industrial projects. This product also includes an integrated network communications sub-system. We have also participated in the development of engineering analysis systems for Finite Element, Circuit Simulation, and Electrostatic Field Analysis and have an extensive background in modern numerical methods.

PRODUCTS AND SERVICES:
Most Analytic products are marketed as components of other companies' systems. We rely on our extensive library of previously developed applications to provide rapid custom development for each individual request. Our in-house real-time operating system provides an immediate base for industrial projects.

MARKET:
Analytic provides consulting services across Canada, but is presently concentrating on the Winnipeg and Toronto market area. We have supplied services to clients ranging from small local companies to internationally based corporations.

ARMED FORCES COMMUNICATIONS AND ELECTRONICS ASSOCIATION (AFCEA) CANADA

Box #3 Canadian Forces Base Winnipeg Telephone #: (204) 833-5888/6607
Westwin, Manitoba R3J 0T0 Fax #: (204) 833-5549

CONTACTS: LCol. Coderre, President Winnipeg Chapter
Capt. Schramm, Membership

HISTORY:
AFCEA is an international professional association dedicated to enhancing the relationships between industry and the military and civil departments and independent agencies of the government in communications, electronics, intelligence, command and control, and information management systems.

CAPABILITIES:
The Winnipeg Chapter sponsors presentations, seminars, equipment expositions and professional development training. The Chapter meets monthly and following the luncheon, there is a guest speaker and an informal information exchange among professionals.

ARTHUR ANDERSEN & COMPANY

1400-201 Portage Avenue
Winnipeg, Manitoba R3B 3K6

Telephone #: (204) 942-6541
Fax #: (204) 956-0830

CONTACT: Ted Hlynsky, Financial Services Manager
Mike Stevens, Business Systems Consulting Manager

EMPLOYEES: Over 100

HISTORY:

The Arthur Andersen Worldwide Organization is one of the world's largest accounting firms and consulting organizations. Our firm was founded in 1913, and today we have 298 offices in 66 countries. We have more than 56,000 personnel, including more than 2,300 partners, serving over 100,000 clients around the world. We operate through two business units - Arthur Andersen and Anderson Consulting. Andersen Consulting began operations in 1948. We built the first computerized business system in 1953. We are now the largest management consulting firm in the world.

CAPABILITIES:

In Canada, Andersen Consulting offers clients total solutions, from strategic planning and systems design/development to change management, systems management, and software products.

Andersen Consulting's mission is to help companies apply information technology to gain competitive advantage and manage the change associated with it. As one of the world's leading systems integrators, Andersen Consulting offers our clients the ability to integrate complex business and technology systems. This ability is based on the integration of broad knowledge and experience in industry, business and advanced technology, plus a full range of services.

Andersen Consulting has developed a reputation because of our proven ability to complete large, complex information systems projects for leading companies and government entities throughout the world.

MARKETS:

Our Winnipeg office, with a personnel compliment of approximately 80 people, offers a full range of services in the areas of accounting and auditing, financial consulting, taxation, corporate reorganization services, business valuation, management and marketing consulting, and has access to resources of our worldwide organization.

AESA BROWN BOVERI CANADA INC.

203 - 5 Donald Street
Winnipeg, Manitoba R3L 2T4

Telephone #: (204) 477-0233
Fax #: (204) 475-1391

CONTACT: Gary Allard, Sales Engineer

BISON ELECTRONICS LTD.

1925 Ness Avenue
Winnipeg, Manitoba R3J 3W4

Telephone #: (204) 837-8068
Fax #: (204) 885-6986

CONTACT: Darcy Yaskiw, Service Manager
EMPLOYEES: 1-10

HISTORY:
Bison Electronics was registered in January, 1972 and incorporated November 2, 1976. What began as a VHF radio repair business quickly led to design and manufacturing of power supplies, timers, and logic boards. In time, the VHF radio business lead to repairs of Marine equipment and Consumer Electronics. Since moving to our present location at 1925 Ness Avenue in 1983, the business continues to grow.

CAPABILITIES:
Authorized repair centre for all major brands of Marine Depth Finders and Electric Fishing motors.
Capable of repairing Hi-Tech audio and video products including 8mm video. Many of the products serviced contain surface mount components.
Repair & alignment of microprocessor-based coin changers for the vending industry.

MARKET:
Consumer Electronics - Winnipeg and surrounding area.
Marine Electronics and Vending Equipment - Central and Western Canada.

BRISTOL AEROSPACE LIMITED

P.O. Box 874
660 Berry Street
Winnipeg, Manitoba R3C 2S4

Telephone #: (204) 775-8331
Fax #: (204) 885-3195

CONTACTS: Keith Burrows, Vice President Aircraft Division
Fred Christie, Vice President Rockets & Space Division

EMPLOYEES: Over 100

HISTORY:
Bristol Aerospace Limited is Western Canada's largest aerospace company. Established as MacDonald Brothers Aircraft in 1930, Bristol has over 60 years of experience in design, development, and manufacture for the world aerospace community.

CAPABILITIES:
Design, development, manufacturing, and integration of electronic subsystems and systems into missiles, space vehicles, fixed and rotary wing aircraft. Scientific payload development, flight support, and launch integration services for upper atmospheric and space experimentation programs. Instrumentation data acquisition and telemetry equipment design for spacecraft, missiles, and rocket systems. Missile command, control, and communications system design and parametric analysis. Fixed and rotary wing aircraft avionics system analysis and development. Radar, communications, navigation, and weapon system upgrades. Flight line and intermediate avionics test set development and manufacture. Military Standard software requirements analysis, development, integration, testing and Quality Assurance. Integrated Logistics Support analysis, planning, and implementation including bilingual technical publication development and maintenance.

PRODUCTS AND SERVICES:
Bristol Aerospace Limited has a variety of manufacturing, test and evaluation equipment to meet all customer needs.

MARKET:
Worldwide.

CANADIAN STANDARDS ASSOCIATION

50 Paramount Road
Winnipeg, Manitoba R2X 2W3

Telephone #: (204) 632-6633
Fax #: (204) 632-1796

CONTACT: Mr. T. H. Higgins, Manager
EMPLOYEES: 11-30

CAN-CALL

2 Birch Bay
Winnipeg, Manitoba R2J 2B8

Telephone #: (204) 256-4632

CONTACT: H. Eastbrook, Manager
EMPLOYEES: 1-10

PRODUCTS AND SERVICES:
Communications consulting.

MARKET:
Local.

CAN-PAY COMPUTER SOFTWARE LTD.

9-1329 Niakwa Road East
P.O. Box 86 Station F
Winnipeg, Manitoba R2J 3T5

Telephone #: (204) 254-4726
Fax #: (204) 254-6605

CONTACTS: Lyle Scammell, President
Mr. Michael Sersun, Vice-President - Marketing

EMPLOYEES: 1-10

HISTORY:

Can-Pay Computer Software Ltd. was established in 1985 with a mission to help companies utilize microcomputers for reliable, in-house, cost effective, problem-free payrolls. Company founder Lyle Scammell, who has more than 15 years experience in the payroll industry, developed the Grand Master payroll system. Over the past 6 years, the company has expanded from its original Winnipeg office to three regional offices in Calgary, Toronto and Regina.

CAPABILITIES:

Can-Pay currently markets "Grand Master Payroll." We specialize in payroll and payroll support functions such as Job Costing, and other personnel related functions for the microcomputer. "Grand Master Payroll" is a leading Canadian payroll for the small company with a simple payroll and for the large company with a more complex payroll. Users of Grand Master Payroll range from 5 to 1100 employees.

Can-Pay recognizes that no two payrolls are identical. Accordingly, the company offers customized payrolls in areas of unusual complexity.

PRODUCTS AND SERVICES:

Can-Pay markets "Grand Master I and Grand Master II Payroll." Can-Pay also offers exceptional customer service with full training and telephone support nationwide and a committment to reduce the cost of preparing a reliable in-house payroll, with offices in Toronto, Calgary, Regina and Winnipeg.

MARKET:

Can-Pay's products are marketed on a nationwide basis.

CHUBB SECURITY SYSTEMS - A DIVISION OF RACAL-CHUBB CANADA LTD.

49 Speers Road
Winnipeg, Manitoba R2J 1M2

Telephone #: (204) 235-1859
Fax #: (204) 237-1715

CONTACT: Armin von Hacht, Branch Manager
EMPLOYEES: 11-30 (In Winnipeg)
Over 100 (In Canada)

HISTORY:

Protecting people and property since 1818, Racal-Chubb Inc. is Canada's and the world's largest electronic and physical security company operating throughout five Canadian divisions and a network of companies in other countries.

CAPABILITIES:

Chubb Security Systems is a leading national supplier of electronic security systems to financial, commercial, industrial and residential customers. Chubb provides 24 hour and 365 days a year security system monitoring at ULC listed Alarm Control Centres in all major centres across Canada.

Comprehensive electronic security including: ULC approved Intrusion, Card Access Control and Closed-Circuit Video. Monitoring services are available for the aforementioned, as well as Fire & Sprinkler Supervisory Systems.

CIRLOG CORPORATION

440-435 Ellice Avenue
Winnipeg, Manitoba R3B 1Y6

Telephone #: (204) 949-0519
Fax #: (204) 947-1397

CONTACT: Jacob Soiferman, President
EMPLOYEES: 1-10

HISTORY:
Founded in 1983 as a computer and electronics consulting company, Cirlog has developed into a diverse, multidisciplined engineering and management company. Cirlog's personnel have extensive management and engineering experience in the high reliability military environment, which is being applied to its product development cycle.

CAPABILITIES:
Cirlog is capable of total system development including hardware and software. Hardware capabilities include electromagnetic, signal processing, microprocessor, digital and analog designs. Software capabilities include programming in C, PASCAL, and various other high level and assembler languages. Our personnel are proficient in MS-DOS, PC-DOS, RMX and the QNX operating systems. Past projects have included applications in data acquisition, communication and business software systems.

CISER SYSTEMS CORP.

3-1079 Wellington Avenue
Winnipeg, Manitoba R3E 3E8

Telephone #: (204) 775-5761
Fax #: (204) 775-5768

CONTACT: Mohinder S. Kauldher, P. Eng., President
EMPLOYEES: 1-10

HISTORY:
Ciser Systems Corp. was established in 1987 as a research and development organization. Since that time, the company's mandate has rapidly expanded to include providing solutions related to the training and communication needs of electric utilities in North America through the use of advanced technologies.

CAPABILITIES:
We specialize in design and development of hardware and software products. In the area of hardware, our specialty includes general electronics design, microprocessor design and analog design. Our software development is in the area of graphical interactive programs for educational purposes. Our programs run under Windows environment and have been developed using Toolbook scripting language.

PRODUCTS AND SERVICES:
The company's major products include an education/safety training Temporary Grounding Simulator for electric utilities which has proven to enhance the effective communication of good work habits, safe temporary grounding procedures and safety precautions regarding hazards faced while working on high voltage transmission and distribution lines.
To complement the Simulator, Ciser provides Computerized Safe Grounding Training System, an interactive graphics software program to reduce accidents and help save lives through a unique lineman safety training tool for equipotential grounding on poles. A major linemen safety hazard is improper vehicle grounding or using dangerous work habits when work is being done near energized high voltage lines. Ciser has addressed this problem by developing the Computerized Vehicle Grounding Training software. This software is designed to reduce accidents and help save lives through better training of new and veteran electrical workers in the safe grounding of their vehicles.

MARKET:
Electrical Power Utilities in Canada, USA and abroad.

CLINICOM INTERNATIONAL
(A DIVISION OF CHI SYSTEMS INC.)

208-93 Lombard Avenue E. Telephone #: (204) 942-5335
Winnipeg, Manitoba R3B 3B1 Fax #: (204) 944-8110

CONTACT: H. Dominic Covey
EMPLOYEES: 1-10

HISTORY:
Visual Computer Systems Ltd. was founded in 1971 by D. Covey and A. Adelman. VCS Ltd. was formed into a partnership in 1979 under the new corporate name: Medical Computing Consultants Ltd. by D. Covey, W. Cass and N. McAlister. These same 3 individuals were joined by N. Craven to form Clinicom International Inc. in 1983. Clinicom International merged with Chi Sytems Inc. (U.S.A.) and became Chi's Information Systems division on February 1, 1990.

CAPABILITIES:
We provide consulting services of the following types: information technology strategic planning, procurement, recruitment of IS executives, design of systems packages, audits and reviews of systems/departments, education and training, implementation planning, strategic market planning, contract negotiation, and litigation support.

PRODUCTS AND SERVICES:
We have developed a proprietary group management technique that we utilize for group plan development, requirements definition and decision-making.
We specialize in the use of change-management techniques.

MARKET:
Healthcare: hospitals, government agencies, clinics, practices, universities and medical schools.
Healthcare Industry: vendors of healthcare products and services, especially computer hardware and software companies addressing the needs of healthcare agencies.

COMCHEQ SERVICES LIMITED

298 Garry Street
Winnipeg, Manitoba R3C 1H3

Telephone #: (204) 947-9400
Fax #: (204) 956-4026

CONTACTS: John Loewen, President and C.E.O.
Barb Gamey, Director of Marketing

EMPLOYEES: Over 100

HISTORY:
Comcheq was founded in 1968 on a payroll system designed by accountants and perfected with the advice of over 8,000 clients. The company began expansion when it opened a branch in Calgary in 1969. Today, Comcheq consists of a network of 18 branches across Canada and is staffed by over 450 payroll professionals who provide payroll services, human resource management systems, and other compensation-related systems to all types and sizes of businesses.

CAPABILITIES:
Comcheq provides computerized payroll services, human resource management systems, and a time and attendance data collection system to satisfy payroll, personnel and time management, as well as labour-related needs. Quickpay, Smartpay and Superpay are specially designed payroll services to meet the needs of small, medium and large businesses. Micropay is Comcheq's payroll data entry system for processing via PC. HR Plus is Comcheq's human resource system exclusively integrated with payroll. Electronic Time Card (ETC) is a shop floor performance measurement system that integrates with payroll.

PRODUCTS AND SERVICES:
Comcheq offers a flexible, microcomputer-based payroll system to satisfy virtually any payroll requirement. Other unique equipment and processes include the Electronic Time Card (ETC) workplace data collection system, TelPay Bill Payment Service and Grassroots Information Services which has been established on networked microcomputers integrated with interactive voice response.

MARKET:
Comcheq serves companies of all types and sizes across Canada from 18 branch offices coast to coast: Halifax, Quebec City, Montreal, Ottawa, Toronto, Etobicoke, Waterloo, London, Winnipeg, Regina, Saskatoon, Calgary, Banff, Edmonton, Kelowna, Langley, Vancouver and Victoria.

CONVIRON (CONTROLLED ENVIRONMENTS)

590 Berry Street
Winnipeg, Manitoba R3H 0S1
Telephone #: (204) 786-6451
Fax #: (204) 786-7736

CONTACTS: Chuck Leibert, Development Manager
Bill Mukanik, Marketing Manager
EMPLOYEES: 51-100

HISTORY:
Conviron has manufactured precise environmental control equipment for over 25 years. The head office and manufacturing facility is in Winnipeg. Conviron also has an assembly plant in Pembina, North Dakota and a sales and service office in Asheville, North Carolina. International parts warehouses are located in Kowloon, Hong Kong and Schiphol, Holland.

PRODUCTS AND SERVICES:
Conviron manufactures a wide variety of controlled environment chambers and rooms. The product includes bench top, reach in and walk in units, as well as germinators, incubators, tissue culture cabinets electronic control packages and a central computer station. The product may be adapted by customized options or a chamber may be custom designed. The engineering team are trained in the areas of structural, mechanical, electrical, electronic, and air handling design. Field installations, on-site training and customer service round off the services supplied by Conviron.
Conviron's specially designed control package and central computer station are designed in conjuction withVansco Electronics Ltd. of Winnipeg.

MARKET:
Conviron equipment is used for agriculture and environmental research. Agricultural experiments such as: improving yields, breeding better varieties of product, controlling pests, and developing regulating chemicals are typical for these chambers. Conviron have manufacturing representatives in 65 countries and product in 70 countries.

COOPERS & LYBRAND CONSULTING GROUP

24th Floor, One Lombard Place
Winnipeg, Manitoba R3B 0X6
Telephone #: (204) 946-2347
Fax #: (204) 944-1020

CONTACT: Richard M. Jones, Associate
EMPLOYEES: 11-30

CREST CIRCUIT CO. LTD.

14 Dubois Place
Winnipeg, Manitoba R3V 1N1

Telephone #: (204) 269-4362
Fax #: (204) 269-2991

CONTACT: Hement M. Shah, Marketing Director
EMPLOYEES: 1-10

CAPABILITIES, PRODUCTS AND SERVICES:
Manufacture single sided, double sided, and multi-layer PCBs; designing artwork, etc.

CROTELCO CANADA INC.

870 Century Street
Winnipeg, Manitoba R3H 0M5

Telephone #: (204) 786-5756
Fax #: (204) 783-7353

CONTACT: Mrs. Meryle Berg, Plant Manager
EMPLOYEES: 31-50

PRODUCTS AND SERVICES:
Manufacture and repair telephone sets.

MARKET:
Canadian.

CSB SYSTEMS LTD.

500-321 McDermot Avenue
Winnipeg, Manitoba R3A 0A3

Telephone #: (204) 947-2669
Fax #: (204) 947-3096

CONTACTS: Dan Stevens, President
Ramon Ayre, Vice-President

EMPLOYEES: 11-30

HISTORY:
CSB Systems Ltd. specializes in computerized information systems for: manufacturing, distribution and retail organizations. We have grown from 3 people in 1986 to 24 people in 1991 with offices in Winnipeg, Thunder Bay, Calgary and Edmonton, supporting over 200 clients.

CAPABILITIES:
Hardware - micro and multi-user (UNIX) (NOVELL) solutions.
Software - accounting and operations information systems for distributors, retailers and manufacturing organizations, Relational Data Base Technology and Case Tools for Open Systems.
Services - consulting and needs definition, design and prototype, installation and training, account management, custom programming and hot-line support.

PRODUCTS AND SERVICES:
Fourth generation language and case (Computer Assisted Software Engineering) development.

MARKET:
Manitoba, Saskatchewan, Alberta and South-Western Ontario.

CSI MANUFACTURING AND DISTRIBUTION INC.

204 Day Street
Winnipeg, Manitoba R2C 1A8

Telephone #: (204) 222-3028
Fax #: (204) 222-0846

CONTACT: Michael H. Tyrer, International Sales & Marketing Manager
EMPLOYEES: 51-100

HISTORY:
CSI Manufacturing and Distribution Inc. (formerly called Command Start Inc.) has been incorporated since 1983. Over the last 3 1/2 years, CSI has been aggressively marketing and redesigning product function to meet todays consumer requirements. CSI's main thrust has been to promote our Command Start Remote Control Car Starters and vehicle security systems across Canada and into the United States market. CSI has also recently acquired exclusive distribution of consumer electronics for a manufacture out of Taiwan.

CAPABILITIES:
CSI Manufacturing and Distribution Inc. do business as both a manufacture and distributor. CSI's main function is to manufacture products of quality workmanship, backed by limited lifetime warranty with full technical support in both Canada and the United States. CSI is a sister company to Kraus Industries Ltd. of which we share full manufacturing, research and development, technical and warranty service. As a group of companies, we are able to take on most any type of electronic manufacturing required. CSI presently manufacture three types of Command Start systems.

PRODUCTS AND SERVICES:
Products manufactured: "Command Start" CSI500, CS3000 and CS3000 Plus.
Products distributed: "Ensure" Personal Alcohol Tester, "Auto Sentry" Vehicle Security Systems, "Home Sentry" Wireless Home Security Systems, and consumer electronic products.

MARKET:
Coast to coast in Canada via distribution/dealer network; various areas of the United States via distribution/dealer network; presently developing off shore marketing in Asia, the Middle East and Central and South America.

DARRACH BUSINESS SYSTEMS LTD.

1867 Portage Avenue
Winnipeg, Manitoba R3J 0H1

Telephone #: (204) 832-1507
Fax #: (204) 888-1534

CONTACT: Scott Darrach
EMPLOYEES: 1-10

HISTORY:
Company started in 1968, specializing in the computer field.

CAPABILITIES:
Forms equipment, media storage, mobile systems and panel systems.

PRODUCTS AND SERVICES:
Forms equipment - bursters, decolators, heat seal system and New High-Performance Infoseal System.
Mobile tab-trac-manual, mechanical and electrical
Prestige Panel System - 4 circuits utilizing 8 wires, system is job task oriented.
Bar Coding, 3480 storage and color coding.

MARKET:
Government (all), Medical Field, Legal, Accounting, Education, Food, Freight, Computer Centres, Utilities, Manufacturing and Insurance.

DAVETEK MARKETING INC.

107-3738 North Fraser Way
Burnaby, B. C. V5J 5G1

Telephone #: (604) 430-3680
Fax #: (604) 435-5490

CONTACTS: Dave Johnson, President
Lois Johnson, Vice President Operations
EMPLOYEES: 1-10

HISTORY:
Davetek Marketing is a manufacturers' representative specializing in high technology components used in the design and construction of electronic equipment. The companies represented are at the leading edge of their technologies and are relevant to the Western Canadian market. Davetek started in 1983 and has become the leading company of its kind in the west.

CAPABILITIES:
Due to the vast distances involved in this territory, a higher level of marketing strategy is required to be effective as well as efficient. Extensive effort is spent on improving market share for the lines we represent and on making customers aware of new products.

PRODUCTS & SERVICES:
Products from: Advanced Micro Devices, Bourns, Converter Concepts Inc., Dallas Semiconductor, Fujitsu, General Instrument Power, Hewlett Packard, International Rectifier, Linear Technology, Micron Technology Inc., Myrand Electronic Systems Ltd., Optrex, United Chemi-Con and VLSI Technology Inc.

MARKET:
Manitoba, Saskatchewan and Alberta.

D.E.M. ALLEN & ASSOCIATES LTD.

130 Cree Crescent
Winnipeg, Manitoba R3J 3W1

Telephone #: (204) 889-9202
Fax #: (204) 831-6650

CONTACT: D.E.M. Allen, C.M., P. Eng., President
EMPLOYEES: 1-10

CAPABILITIES:
Consulting Engineering services to the Broadcast Industry and to those industries requiring expertise in the fields of Radio Propagation and Electromagnetic Energy.

DELOITTE & TOUCHE

2200-360 Main Street
Winnipeg, Manitoba R3C 3Z3

Telephone #: (204) 942-0051
Fax #: (204) 947-9390

CONTACTS: Walter Dubowec, Managing Partner
Calvin Buss, Senior Manager

EMPLOYEES: Over 100

HISTORY:

Deloitte & Touche is a Canadian firm of Chartered Accountants and Management Consultants, managed, directed and owned by our Canadian partners. Deloitte & Touche was formed in February, 1990 through the merger of two of Canada's major public accounting firms, Deloitte/Samson and Touche Ross. This merger capitalized on the many and varied strengths of the two predecessor firms to form an integrated, full service professional accounting, taxation and management consulting organization. Through its predecessor firms, Deloitte & Touche has served Canadian clients for over 130 years.

CAPABILITIES:

Deloitte & Touche provides a full range of professional services to our wide range of clients. Our services include audit, taxation, financial and special services, technology consulting and management consulting. Our firm services a broad variety of large and small clients in the public and private sector.

DESKIN INC.

155 Clayton Drive
Markham, Ontario L3R 7P3

Telephone #: (416) 475-1412
Fax #: (416) 474-9105

CONTACTS: Stephen J. Harper, National Sales Manager
John Evans, Sales Representative - Winnipeg

EMPLOYEES: Over 100

HISTORY:
Started in 1954 by Al Deskin as a manufacturing representative for electronic components. Over the years, Deskin has expanded into cable T.V. distribution and power protection equipment (U.P.s etc.)

CAPABILITIES:
Manufacturers rep. stocking electronic components such as switches, relays, power supplies, cable and semiconductors. Stocking locations in Halifax, Montreal, Toronto and Vancouver.

PRODUCTS AND SERVICES:
Electronic components.

MARKET:
Telecom manufacturers, power supply manufacturers and electronic component users. Restricted by contract to exclusively sell in Canada.

DIAL DATA SERVICES INC.

410-363 Broadway Avenue
Winnipeg, Manitoba R3C 3N9

Telephone #: (204) 956-1625
Fax #: (204) 943-5350

CONTACT: Robert Papineau, C.A., President
EMPLOYEES: 11-30

HISTORY:
Dial Data Services Inc. (and predecessor companies) has been in operation for thirteen years. Its owner, Robert Papineau, is a Chartered Accountant, having graduated in 1962. Several staff members have in excess of five years with the firm. We have employees working on both day and night shifts.

CAPABILITIES:
Dial Data's main business includes Data Entry Services, processing of accounting services such as General Ledger, Accounts Receivable, Accounts Payable, and Time Inventory systems for accountants. We also provide management accounting services for several small businesses.

PRODUCTS AND SERVICES:
Data Entry and Management Accounting.

MARKET:
Accountants, Professionals and Government.

DIVERSITY PRODUCTS LTD.

434 Kensington Street
Winnipeg, Manitoba R3J 1J7

Telephone #: (204) 453-0573
Fax #: (204) 837-6562

CONTACT: Morton D. Larsen, Secretary-Treasurer
EMPLOYEES: 1-10

HISTORY:
Diversity Products Ltd. was established in 1980 and operates under the trade names of EXI Electronics Manufacturing and Audiotek Acoustics & Sound. The owner has 33 years of business experience in the electronics industry of which 23 years is in business ownership. Years of experience has provided an acute understanding of Health Care Market requirements in electronic communication and alarm systems. EXI Electronics Manufacturing designs, manufacturers and exports electronic systems either directly or indirectly related to health care. Audiotek Acoustics & Sound sells installed, these and other products, into Hospitals and Personal Care Homes throughout Manitoba and North Western Ontario. Export markets have so far been limited to the United States.

CAPABILITIES:
DMS500 Door Monitor System, TVS500 TV Control System, ECS500 Emergency Call System, Assault Alarm, and a Roam Alert.

MARKET:
Canda and the United States.

D.J. MEDIA ENTERPRISES INC.

942 Erin Street
Winnipeg, Manitoba R3G 2W5

Telephone #: (204) 786-7422
Fax #: (204) 775-3730

CONTACT: Keith Thompson, President
EMPLOYEES: 11-30

HISTORY:
D.J. has been in Winnipeg for over 14 years. It started as a 3M visual product dealership under current management since 1984.

CAPABILITIES:
Sales, service, rental of Lanier photocopiers, Lanier facsimile, N.E.C. facsimile, Friden Alcatel postage systems, Lanier overhead projectors, and Lanier visual products.

PRODUCTS AND SERVICES:
Lanier photocopiers and supplies, Lanier facsimile and supplies, Lanier overhead and visual supplies, and Friden Alcatel mailing/shipping systems.

MARKET:
Winnipeg, Southern Manitoba, Central Manitoba, West to Brandon and East to Kenora.

EB SYSTEMS LIMITED

313 Carpathia Road
Winnipeg, Manitoba R3N 1T2

MCI Mail #: (204) 477-2172
Telephone #: (204) 489-7467
Fax #: (204) 489-7471

CONTACTS: W. E. (Bill) Evans, President
K. G. (Ken) Babb, Vice - President

EMPLOYEES: 1-10

HISTORY:
The founding principles of EB SYSTEMS LIMITED have over 40 years cumulative experience in broadband and business telecommunications - voice, data and video; microcomputer networking and local area networks. In 1989 EB SYSTEMS LIMITED was formed as an independent professional telecommunications consultancy, design engineering and project management resource.

CAPABILITIES:
Consulting, project management and design engineering services pertinent to:
- broadband communications systems, employing coaxial cable, digital/analogue fibre optics; satellite and microwave radio including CATV, SMATV distribution, office wiring and cabling systems (802 series LANS) and metropolitan area networks.
- multipoint multichannel distribution systems MDS/MMDS/MCS for video/audio and data.
- general business telecommunications systems and management consulting in telecommunications.

PRODUCTS AND SERVICES:
Fully CAD equipped for broadband network design (CATV, LAN) and microwave system design.

MARKET:
Europe, South America, the Carribean, the Far East, and Canada.

ELECTRO TRAC CIRCUITS LTD.

144 Banister Road
Winnipeg, Manitoba R2R 0S3

Telephone #: (204) 694-4000
Fax #: (204) 694-7018

CONTACTS: Robert R. P. Turcotte, General Manager
Gunter B. Kuklik, Director of Marketing

EMPLOYEES: 11-30

HISTORY:

Electro Trac Circuits Ltd. is a Winnipeg manufacturer of single-sided and double-sided printed circuit boards.

Founded in 1983, the company has developed a dedicated team of people who blend the required scientific knowledge with a high standard of craftsmanship. Quality and on-time delivery, the main attraction for its customers, is the absolute first concern of every Electro Trac employee. This attitude rewarded the company with a 400-percent sales growth between 1987 and 1990.

CAPABILITIES:

Electro Trac is capable of providing double-sided plated through holes and single-sided circuit boards. Additional services available are: Photo-plotting, Solder mask and component ID silk-screening, Gold-plated edge connectors, Solder mask over bare copper, Special routing (slots, cut outs, custom shapes), and Bare-board electrical testing. All processes are approved by Underwriters' Laboratories of Canada.

Electro Trac looks forward to continuing its rapid growth by continuously upgrading its capabilities and manufacturing equipment, allowing the company to expand on its already high standards of quality and service.

Whether requirements call for quick prototype turnaround or large production runs, Electro Trac will give it the required attention to satisfy customer needs.

MARKET:

Electro Trac currently serves customers from the Pacific Coast to Southern Ontario, as well as the American mid-west and the state of Georgia. The size of companies ranges from small privately owned ones to large international firms.

ELECTRONICS INDUSTRY ASSOCIATION OF MANITOBA

414-435 Ellice Avenue
Winnipeg, Manitoba R3B 1Y6

Telephone #: (204) 943-7533
Fax #: (204) 943-9206

CONTACT: Val Waldbauer
EMPLOYEES: 1-10

HISTORY:
The Electronics Industry Association of Manitoba (EIAM) was established in 1983 to "assist in the promotion and growth of the Electronics manufacturing, distribution and software industry in Manitoba." The Assocation currently serves in excess of 80 members.

CAPABILITIES:
EIAM maintains an office which organizes seminars, manages training programs; provides information to members and to companies seeking contacts in Manitoba; provides information to members about government programs and provides information to governments about the needs of the industry.

PRODUCTS AND SERVICES:
- EIAM manages employee training programs sponsored by government agencies.
- Maintains information on relevant government programs.
- EIAM sponsors seminars relevant to electronics industry business.
- EIAM produces this directory of the electronics industry.

MARKET:
EIAM draws its membership from Manitoba, but provides information to interested business contacts on a national or international basis.

ELECTRO SONIC INC.

613-1661 Portage Avenue
Winnipeg, Manitoba R3J 3T7

Telephone #: (204) 783-3105
Fax #: (204) 774-7288

CONTACT: R. J. Sawatzky, Regional Sales Manager
EMPLOYEES: 1-10

HISTORY:
Electro Sonic Inc. acquired the western offices of Saynor Varah Inc. on May 29, 1989. With five strategically located offices to serve the country, this has combined to establish the company as one of the largest stocking industrial electronic distributors in Canada.

CAPABILITIES:
Electro Sonic Inc. are distributors of electronic and electrical components, test equipment, tools and associated products. We are organized to provide next day delivery from stock items to the O.E.M., M.R.O. and educational markets. We also have facilities to provide J.I.T. Delivery, Release as Requested, Scheduled Orders, Blanket Orders and Kitting of Parts to your specification.

MARKET:
On a local level, Electro Sonic Inc. services Manitoba, Saskatchewan and North Western Ontario up to the Lakehead. Nationally we service Canada from coast to coast with locations in Ottawa, Toronto, Winipeg, Calgary and Vancouver.

EVERT COMMUNICATIONS LTD.

1296 Carling Avenue
Ottawa, Ontario K1Z 7K8

Telephone #: (613) 728-4621
Fax #: (613) 728-0385

CONTACTS: Gordon D. Hutchison, Publisher
Bruce Blackie, Editor

EMPLOYEES: 1-10

HISTORY:

The Electronics Communicator was established in 1969 as a service to the Canadian Electronics Industry by Ian A. Reid. Publishing responsibilities were transferred to Evert Communications Ltd. in 1976, underwhich the newsletter had continued to provide detailed intelligence of developments within, and affecting, the Canadian electronics manufacturing and distribution sector. Now in its 23rd year, EC is an effective management and planning tool used by more than 3,000 readers.

CAPABILITIES:

The Electronics Communicator provides accurate, timely and actionable reports of developments in the sector. For example, each weekly issue features a number of articles about electronic manufacturing companies. The content could focus around new management structures, expansions, the impact of new product developments, major orders, or new financing. No matter what the topic, all articles interpret the impact of these changes to the market position of the company. Other articles cover the import and distribution of electronic goods, and the impact of public policy on the manufacturing and distribution of electronic goods.

PRODUCTS AND SERVICES:

The publisher maintains a comprehensive database of all electronic manufacturing and distribution enterprises in Canada in support of the newsletter. Subscribers have access to these extensive files.

MARKET:

The Electronics Communicator is targetted on the Canadian Industry, with little distribution outside of the country. It is available by subscription only: $575.00/year for 40 issues (issued weekly, except during the summer and year-end).

FIELDS INDUSTRIAL ELECTRONICS
A DIVISION OF FIRE-TECH SYSTEMS INC.

327 Wardlaw Avenue
Winnipeg, Manitoba R3C 0L5

Telephone #: (204) 452-7422
Fax #: (204) 284-0975

CONTACT: Jeff Seymour, President
EMPLOYEES: 1-10

HISTORY:
Purchased existing company in April, 1985. Have expanded operations, servicing emergency lighting equipment systems.

CAPABILITIES:
Warrany service for Emergilite, Lumaull and ReadyLite manufacturers of emergency lighting equipment. Service on door entry, systems for Apartments, etc. Service on master clock systems for schools, etc. Provide regular service for business hours as well as a 24 hour emergency service line.

PRODUCTS AND SERVICES:
See above.

MARKET:
Basically Winnipeg area Have finished projects in Langruth, Landmark and Carman, Manitoba.

FIRE-TECH SYSTEMS INC.

327 Wardlaw Avenue
Winnipeg, Manitoba R3L 0L5

Telephone #: (204) 452-1772
Fax #: (204) 284-0975

CONTACT: Jeff Seymour, President
EMPLOYEES: 1-10

HISTORY:
Started in August, 1980 servicing other manufacturers' equipment. Secured our own line to represent in April, 1983. Electro-Vox out of Montreal. Now handle Electro-Vox and Notifier Lines of F/A systems. Service over 800 buildings in Winnipeg and Manitoba areas. Presently very active in the quoting of systems to Electrical contractors.

CAPABILITIES & PRODUCTS AND SERVICES:
Sales and service of Electro-Vax and Notifier Lines of F/A systems, service to all other makes of F/A systems, inspection and testing services for all makes of systems, and service to all other makes of units and systems. Exclusive distributor of the Mirtone Product Line including Fire Alarm, Security and Intercom.

MARKET:
Basically the Winnipeg area.

GANDALF CANADA

305-338 Broadway Avenue
Winnipeg, Manitoba R3C 0T3

Telephone #: (204) 947-3616
Fax #: (204) 943-1421

CONTACT: Bob Wark, District Accounts Manager
EMPLOYEES: 1-10 (local office)
Over 100 (Internationally @ 1600)

HISTORY:

Gandalf is entering its third decade. In 1970, Gandalf commenced its operations in a 400 square foot facility on Merival Road in Ottawa. The company designed and built the first local data set for data transmission over analog facilities. In the mid-seventies, Gandalf designed and released the world's first Private Automatic Computer Exchange for data switching. The company has evolved into a designer and major supplier of Intellignet Network Controllers and other high quality networking solutions.

CAPABILITIES:

Gandalf provides computer communications solutions to end users. In order to do this, it designs, manufactures, markets and services a broad line of computerized communications systems, software and hardware equipment. These permit users to communicate between computers from multiple vendors, terminals and other devices in networks ranging from local to wide areas. Gandalf's principal products include: sophisticated communications networks and network management systems, terminal servers, data switches, transmission devices such as modems, terminal adaptors and multiplexers. The company markets its wide range of computer communications solutions to single-site and multilocation organizations through subsidiaries worldwide.

PRODUCTS AND SERVICES:

In 1991, Gandalf designed and manufactured a new line of equipment to address emerging computer technologies and to allow customers to take advantage of existing and lower cost wiring systems. The new equipment called 10BASE-T includes: Wiring Hubs, NIC cards, Transceivers, etc. In delivering communication solutions to its customer, Gandalf is committed to supporting technologies that will be needed in the future. In addition, we ensure that our customers are able to make the transition from existing to new technologies easily and economically.

MARKET:

Gandalf's market focus includes business and educational organizations of all sizes. The company's major strength lies in addressing mixed computing environments where different protocols need to be connected to each other, either centrally or remotely. Manufacturing is performed in Canada, the U.S.A. and the U.K. Products are distributed throughout the world by a Direct Sales Force generally, and in some international territories by Distributors.

GENERAL ELECTRIC AEROSPACE

435 Ellice Avenue
Winnipeg, Manitoba R3B 1Y6

Telephone #: (204) 989-6700
Fax #: (204) 957-7376

CONTACT: Alan Shade, Manager Digital Receiver Systems
EMPLOYEES: 1-10

HISTORY:
GE Aerospace is one of the divisions of the General Electric Company, which is a large multi-national coporation with approximately 300,000 employees in total. GE Aerospace is involved in the development and manufacture of products in virtually all areas of the aerospace industry such as: Jet Engines, Ground and Airborne Radar Systems, Flight Control Systems and Communication Systems for military and commercial aircraft, as well as Satelitte Communications Systems.
GE Aerospace (Canada), as part of its commitment under offset agreements entered into when GE Power Systems obtained the contract for the Generators at the Limestone Project, has established a Research and Development facility in Winnipeg known as the Digital Receiver System Facility. This facility, together with GE Aerospace Electronic Systems in Utica, New York, is involved in the development of a new product called the Digital Acoustic Receiver Systems (DARS) for the detection of submarines. Canada has the world product mandate for this product, and upon successful completion of flight testing and qualification, the product will be manufactured in Manitoba and marketed world-wide through the General Electric Marketing System.
It is intended that this only be the first of many new products developed by this R & D team, in cooperation with other GE Divisions, for manufacture in Manitoba.

CAPABILITES:
The facility is, at present, only doing internal research and development. It is anticipated that an electronics manufacturing facility will be established in Manitoba.

PRODCUTS AND SERVICES:
GE Aerospace has a variety of developmental, test and evaluation equipment to develop new electronic products and systems.

MARKET:
Worldwide.

GOVERNMENT OF CANADA
DEPARTMENT OF COMMUNICATIONS

200-386 Broadway Avenue
Winnipeg, Manitoba R3C 3Y9

Telephone #: (204) 983-2771
Fax #: (204) 983-3182

CONTACT: Verma Pawas, Regional Manager
EMPLOYEES: 51-100

GOVERNMENT OF CANADA
EMPLOYMENT AND IMMIGRATION

Room 500 - 259 Portage Avenue
Winnipeg, Manitoba R3B 3L4

Telephone #: (204) 983-3750
Fax #: (204) 983-8319

CONTACT: Joanne Daoust, Industrial Consultant
EMPLOYEES: Over 100

HISTORY:
Federal Government Department.

PROGRAMS AND SERVICES:
Offered to both Employers, Associations and workers in the areas of Labour Market Information, Unemployment Insurance, Workforce Adjustment Programs, Training and Immigration.

GOVERNMENT OF CANADA
INDUSTRY SCIENCE & TECHNOLOGY CANADA

P.O. Box 980 - 9th Floor
330 Portage Avenue
Winnipeg, Manitoba R3C 2V2

Telephone #: (204) 983-3662
Fax #: (204) 983-2187

CONTACT: Emilee Pedruchny, Industry Technology & Trade Officer

HISTORY:
Industry Science & Technology Canada is a department within the Government of Canada that works with industry.

CAPABILITIES:
Assist companies with: strategic partnering and alliances, marketing research, information on export markets and promotes awareness of quality standards and other initiatives designed to increase productivity.

PRODUCTS AND SERVICES:
Various programs and services of benefit to the electronics and software industries.

MARKET:
Work with the electronics and software companies to help them access all international markets.

GOVERNMENT OF CANADA
WESTERN ECONOMIC DIVERSIFICATION

P.O. Box 777
712-240 Graham Avenue
Winnipeg, Manitoba R3C 2L4

Telephone #: (204) 983-4472
Fax #: (204) 983-1280

CONTACTS: G. F. (Rick) Morgan, Senior Development & Assessment Officer
Susan Frankenberger, Development & Assessment Officer

EMPLOYEES: 31-50 (In Winnipeg)

HISTORY:

Established in August 1987. Provides financial assistance to firms developing new products, developing new export markets, developing new technology. Projects involving import replacement or resulting in systemic benefits to a number of firms in a sector are also of interest. WD can assist with captial costs, R & D, marketing, and has special initiatives for quality assurance, international marketing, and western procurement.

GOVERNMENT OF MANITOBA
INDUSTRY, TRADE & TOURISM
INFORMATION & TELECOMMUNICATIONS INDUSTRY BRANCH

5th Floor - 155 Carlton Street
Winnipeg, Manitoba R3C 3H8

Telephone #: (204) 945-5287
Fax #: (204) 945-7592

CONTACTS: Edgardo Gonzalez, Executive Director
Rod Sprange, Associate Executive Director

EMPLOYEES: 1-10

HISTORY:
The branch was established in 1984, with the mandate to formulate strategies and deliver programs to develop the computer, software and telecommunications industry sector (Information Technology), through public and private sector partnering.

CAPABILITIES:
The Branch staff provides assistance in the formulation of business/marketing plans; market evaluations, securing assistance from federal and provincial programs; joint ventures; participation at national and international trade shows; and industry-government strategic procurement initiatives.

GOVERNMENT OF MANITOBA
INDUSTRY TRADE & TOURISM
SECTORAL DEVELOPMENT

410-155 Carlton Street
Winnipeg, Manitoba R3C 0H8

Telephone #: (204) 945-8234
Fax #: (204) 957-1793

CONTACT: Andrew Jensen, Development Officer

CAPABILITIES:
The role in Sectoral Development is to work with electronics manufacturers and software developers to assist in their development. The department has a number of financial assistance programs including: the Manufacturing Adaptation Program offers cost shared low interest loans to companies planning to purchase state of the art production equipment; the Technology Commercialization Program offers cost shared non repayable financial support for entrepreneurs with innovative technological ideas; and the Feasibility Studies Program offers cost shared financial assistance for companies wanting to hire a consultant to do a feasibility study or business plan. New or existing firms and individuals seeking assistance with new product development, the establishment of new facilities or the expansion of existing operations are potentially eligible for support.

GOVERNMENT OF MANITOBA
INDUSTRY TRADE & TOURISM
TRADE BRANCH

410-155 Carlton Street
Winnipeg, Manitoba R3C 3H8

Telephone #: (204) 945-1125
Fax #: (204) 957-1793

CONTACT: Doug Taylor, Trade Development Officer

PRODUCTS AND SERVICES:
Provides assistance to Manitoba electronics industry with Trade Assistance Program (TAP) and Marketing Plan Program (M.P.P.). Also provides consulting assistance to Manitoba firms in export pricing, tariffs, shipping, documentation and Export Development seminars.

GOVERNMENT OF MANITOBA
TELECOMMUNICATIONS POLICY OFFICE

855-405 Broadway Avenue
Winnipeg, Manitoba R3C 3L6

Telephone #: (204) 945-3743
Fax #: (204) 945-5218

CONTACT: Charles Feaver, Senior Policy Advisor
EMPLOYEES: 1-10

HISTORY:
The Telecommunications Policy Office is a small agency within the Provincial Government which reviews telecommunications policy issues from a Manitoba perspective.

CAPABILITIES:
The Telecommunications Policy Office provides liaison between government and industry on telecommunications policy matters.

GOVERNMENT OF MANITOBA
WORKFORCE 2000 - MANITOBA EDUCATION & TRAINING

1010-401 York Avenue
Winnipeg, Manitoba R3C 0P8

Telephone #: (204) 945-2000
Fax #: (204) 945-6054

CONTACTS: Barry Miller, Training Consultant
Jennie Styrchuk, Program Development and Support

EMPLOYEES: 11-30

HISTORY:

A new skills training strategy from the Province of Manitoba designed to promote private sector involvement in human resource development and workplace training. Workforce 2000 offers 4 major components to assist industry: training advisory and brokerage service; private sector training incentives; industry-wide human resource planning; and province-wide special courses.

GPT (CANADA)
GEC PLESSEY TELECOMMUNICATIONS (CANADA) LIMITED

419 Notre Dame Avenue
Winnipeg, Manitoba R3B 1R3
Telephone #: (204) 942-7221
Fax #: (204) 943-6183

CONTACT: Mr. Ian A. Wright, President and C.E.O.
EMPLOYEES: 31-50

HISTORY:
The company was founded in June 1924 and has operated in Winnipeg under various names, the one most recognized is A.E.I. Telecommunications (Canada) Limited. Over the years, GPT (Canada) has made important contributions to the switching network in Canada.

CAPABILITIES:
Full Design, Development and Manufacturing capabilities for RF, Analogue and Digital Electronic Communications Systems. Current products include: "TELEPAK/ERS" 9-1-1 Emergency Reporting Systems, "ANIPAK" Automatic Number Identification equipment for detailed billing of long distance telephone calls, and "CHANNELVIEW 2000" Low Power Microwave Distribution Systems for the broadcasting of T.V. signals.

PRODUCTS AND SERVICES:
A full range of Engineering Research and Development capabilities utilizing CAE/CAD on PC based workstations.
Product Customization to meet specific client requirements.
CSA Z.299 (ISO 90002) approved level of manufacture and Quality Assurance applied for.

MARKET:
Manitoba, U.S.A., Pakistan, Africa, Central America, The West Indies and South America.

HALLCRAFT ELECTRONICS LTD.

1760 Sargent Avenue
Winnipeg, Manitoba R3H 0C7
Telephone #: (204) 786-5846
Fax #: (204) 783-0604
CONTACTS: H.B. Smithen, President
Julian Garski, Manager - Technical & Design Services
EMPLOYEES: 11-30

HISTORY:
Incorporated in 1962. Started with a staff of 6. Grew steadily till this year. We are a semi-sophisticated service business.

CAPABILITIES:
Hallcraft lays out, designs, supplies, installs and maintains equipment for sound, Muzak and communication systems.

PRODUCTS AND SERVICES:
See above.

MARKET:
Manitoba and North West Ontario.

HERZING CAREER COLLEGE

723 Portage Avenue
Winnipeg, Manitoba R3G 0M8

Telephone #: (204) 775-8175
Fax #: (204) 783-8107

CONTACT: Lynda Will, Placement Director
EMPLOYEES: 11-30

HISTORY:
Herzing Career College has created professionals in Winnipeg for over twenty years. Courses are conducted in the morning, afternoon or evenings. Financial aid assistance, job search skills as well as job placement assistance are provided. The College is accredited by the National Accreditation Commission.

CAPABILITIES:
The objective of the College is to provide the necessary skills and knowledge required by an entry level microelectronics field service technician or trouble shooter.

MARKET:
Graduates of the Computer Electronic Technology course will be employable as entry level microcomputer service technicians or in micro-control sales, service or installation. They would also be suitable for positions in electronic parts sales or computer, and computer peripheral sales.

HEWLETT-PACKARD (CANADA) LTD.

1825 Inkster Boulevard
Winnipeg, Manitoba R2 1R3

Telephone #: (204) 694-2777
Fax #: (204) 694-3901

CONTACTS: Lyndon Olson, Branch General Manager
Bohdan Berestin, Sales Representative

EMPLOYEES: Over 100

HISTORY:

Dave Packard and Bill Hewlett, fellow electrical engineering students at Stanford University, founded HP in 1939. They developed their first product, an audio oscillator, in Packard's garage in Palo Alto, California. Walt Disney used the oscillator to enhance the sound effects in the movie "Fantasia." This was HP's First Major Customer. Our revenue in 1991 was $14.5 Billion.

PRODUCTS AND SERVICES:

Designer and manufacturer of measurement and computation products and systems; principal product groups included: computers and computer peripheral; test and measurement instruments; medical electronic equipment; solid state components; personal work-stations and hand held calculators; instruments for chemical analysis.

MARKET:

HEWLETT-PACKARD Company is an international manufacturer of measurement and computation products and systems recognized for excellence in quality and support. The company's products and services are used in industry, business, engineering, science, medicine and education in approximately 100 countries.

HUGHES AIRCRAFT OF CANADA LIMITED
WINNIPEG DIVISION

260 Saulteaux Crescent
Winnipeg, Manitoba R3J 3T2

Telephone #: (204) 949-2400
Fax #: (204) 889-1268

CONTACT: Ron Guimond, General Manager
EMPLOYEES: 31-50

HISTORY:
In 1970, AML (Amplitude Modulated Link) was established in Los Angeles, California as a joint venture between the Industrial Electronics Group of Hughes Aircraft Company and Teleprompter Corporation, a manufacturer and installer of cable distribution systems for the cable television (CATV) industry. In 1976, the business was moved to Torrance, California after the joint venture was divided and Hughes retained the AML product line. In 1992, Hughes AML was relocated to the Winnipeg Division of Hughes Aircraft of Canada Limited.

CAPABILITIES:
Hughes, Winnipeg Division designs, develops, and manufacturers microwave equipment and networks for the CATV industry. The wide-band microwave network links are used to traverse inhospitable terrain economically, and to bypass non-revenue generating areas.
The AML systems transmit VHF television broadcast signals using microwave technology to remote hubs where the signals are distributed to subscribers via coaxial cable networks. The systems are capable of carrying 80 television channels simultaneously to 32 remote hubs at a distance of 20 miles (32 Km). In addition to the AML business, the Winnipeg Division is pursuing other business opportunities.

PRODUCTS AND SERVICES:
The product line consists of low, medium, and high power transmitters, broadband downconverter receivers, beam benders, and a full line of accessories. Equipment designs utilize solid-state technology; transmitters employ advanced high-power GaAs FET devices and designs, developed and patented by Hughes Aircraft Company. Services include applications engineering, field engineering, equipment installation, on-site maintenance and repair, and on-site and factory training.

MARKET:
Canada, South America, U.S., Europe and new international markets.

IES (INDUSTRIAL ELECTRONICS SERVICES)

Box 9 Grp 23 RR2
Dugald, Manitoba R0E 0K0
Telephone#: (204) 957-1699

CONTACT: Mr. B. Fentum, Manager
EMPLOYEES: 1-10

HISTORY:
The company was started in 1986, to provide a service to the manufacturing sector in Manitoba. We specialize in emergency on site troubleshooting, fault diagnosis and repair to all types of manufacturing equipment which utilize electronic controls. We offer 24 hour availability at very reasonable rates. Maintenance contracts are negotiable.

CAPABILITIES:
Repairing troublesome Electronic and Electrical controls, and Instrumentation for production machines with experience in most industries in Manitoba.

PRODUCTS AND SERVICES:
IES has the capability to repair the following products:
Aerospace - Filament Winding - Sonic N.D.I.
Chemical - Process Control - Instrumentation
Food & Feed - Variable Speed Drives - Temperature Controls - Level Controls
Graphic Arts - Copy Cameras - Exposure Lamps - Processors - Presses - Phototypesetters - Platemakers - Cutters - Collators - Binders.
Garment - Sewing Machine Controls - Embroidery - Pressors - Welders
Metalworking - NC & CNC Machines - Welders - Shears - Brake Presses - Plasma Torches - Automatic Back Gauges
Packaging - Box Folders & Gluers - Label Dispensers - Sonic Cap Sealers - Level Controls - Bag Fillers & Sealers - Weighing Systems
Plastics - Extruders - Injection Moulders - Rotational Moulders - Slitters - Flexographic Presses - Bag Machines - Waste Reclaimers
Woodworking - Saw Blade Grinders - Automatic Saws - NC Drills - Edge Banders - Temperature Controls - Optimising Saws
Windows - Glass Cutters & Optimisers - Thicknessers - PVC Framers
Test Equipment Repaired and Calibrated.

MARKETS:
Our market area at present is all of Manitoba, with the majority of customers in the Winnipeg area.

INDUSPAC WEST INC.

356 Saulteaux Crescent
Winnipeg, Manitoba R3J 3T2

Telephone #: (204) 832-0544
Fax #: (204) 889-5131

CONTACT: Simon Crowther, Operations Manager
EMPLOYEES: 11-30

HISTORY:
Induspac West Inc. (A member of the Induspac Packaging Group Inc.) established in Winnipeg in 1990 to supply custom packaging materials to the electronics, aerospace, medical and other high technology industries. Manufacturing plants in Winnipeg, Toronto, Ottawa and Montreal.

CAPABILITIES:
Custom fabrication of such products as: cushioned pallets; skids and crates; die cut foam inserts and end caps; foamed lined cartons and PCB wraps, including conductive & foil lined corrugate, and antistatic foam components; working with all grades and thicknesses of polyurethane, polyethylene and polystyrene foams (regular and antistatic); singlewall, doublewall and triplewall corrugate products.

PRODUCTS AND SERVICES:
Foam die cutting, heat and glue laminating and roll stock perforating and slitting.

MARKET:
High technology electronics components/systems manufacturing, aerospace, military (U.S. & Canadian) contractors, furniture manufacturing, and precision tooling/painting/sheet metal manufacturing.

INDUSTRICAL TECHNOLOGY CENTRE, AN OPERATION OF THE ECONOMIC AND INNOVATION TECHNOLOGY COUNCIL (EITC)

1329 Niakwa Road E.
Winnipeg, Manitoba R2J 3T4

Telephone #: (204) 945-6000
Fax #: (204) 945-1784

CONTACT: Trevor Cornell, P. Eng., Manager - Engineering
EMPLOYEES: 31-50

CAPABILITIES:
In support of economic development in the Province of Manitoba, the EITC participates with industry, government and universities to encourage the successful commercialization of scientific research and development into innovative products. Through the Industrial Technology Centre, it provides specialized research, product design, prototyping and testing to assist Manitoba companies with developing new or improved products.

INFOMAGNETICS TECHNOLOGIES CORPORATION

1329 Niakwa Road East
Winnipeg, Manitoba R2J 3T4

Telehphone #: (204) 945-8896
Fax #: (204) 945-1784

CONTACTS: Dr. M. Barakat, President
Mr. H. Liontas, Vice-President
EMPLOYEES: 1-10

CAPABILITIES:
Research, development and manufacturing of satellite ground station antennas and associated electronics. Development of information systems for advanced manufacturing and office automation technologies. IMT has all the necessary equipment for the development and testing of antennas. A variety of workstations are available for software developments.

PRODUCTS AND SERVICES:
Advanced antenna designs and manufacturing; custom information systems for manufacturing industry including scheduling, networking and technology management.

MARKET:
National and International markets with special emphasis on North America.

INFOTECH INC.

485 Madison Street
Winnipeg, Manitoba R3J 1J2

Telephone #: (204) 885-2558
Fax #: (204) 831-0416

CONTACT: Ms. Zorianna Hyworon, President (Key Contact)
EMPLOYEES: 1-10

HISTORY:
InfoTech Inc. specializes in the development of consumer-oriented software on health-related topics for the corporate, health care and health promotion markets. Its first product, the WELLNESS CHECKPOINT, was released in 1990 and is being used for employee assistance, wellness promotion, patient education, public health promotion and health risk appraisal in corporations, small businesses, hospitals, schools, fitness centres, clinics and public access locations in Canada.

CAPABILITIES:
Artificial Intelligence (AI), Decision Support System (DSS).
InfoTech Inc. uses a fifth generation computer-based training authoring environment to create consumer-oriented products with graphics, animation and a user-friendly interface. InfoTech's products can be run on any IBM-compatible computer with CGA, EGA or VGA graphics, adapting its configuration to run from diskette or hard disk.

PRODUCTS AND SERVICES:
WELLNESS CHECKPOINT: A unique, interactive, user-friendly software product used to access and show the user the health-related effects of the various aspects of their lifestyle. As the sun rises over the mountains to the familiar folk tune "Early One Morning", the user is drawn into a personalized, confidential opportunity to take stock of lifestyle habits that present a risk to health. Graphics, animation, humour, simple analogies and interaction are used to enhance the use of the software. The system includes a health risk assessment questionnaire with interactive feedback and goal setting, a Personal Wellness Profile report and over 2.5 hours of a card game.
Corporate Wellness Data: Analysis - A companion product for the maintenance and analysis of corporate wellness data collected by the WELLNESS CHECKPOINT including comprehensive on-screen and print presentation of responses and risk scores.
The WELLNESS CHECKPOINT is the first of a library of consumer-oriented software. It provides an introduction to the various topics that will follow. Customization of standard products will be considered for major clients or strategic implementations. Future R&D is to include the integration of CD-ROM storage, digitized audio, voice control and other technologies that would enhance the presentation of information and user interfaces.
WELLNESS CHECKPOINT has only recently entered the market place, with its release in the summer of 1990.

MARKET:
Operating Systems: IBM-compatible microcomputers
Geographic Markets: Worldwide
Industry: Corporate human resources, entrepreneurs, small businesses, health care institutions, fitness and health promotion organizations, computer hardware and software suppliers, Value-Added Resellers, software publishers, and marketing organizations.

INSTITUTE OF CERTIFIED MANAGEMENT CONSULTANTS OF MANITOBA (ICMCM)

414-435 Ellice Avenue
Winnipeg, Manitoba R3B 1Y6

Telephone #: (204) 942-8678
Fax #: (204) 943-9206

MEMBERS: 51-100

HISTORY:
ICMCM was first incorporated under a Province of Manitoba Charter in 1977. In 1986, an Act (C47) repecting the Institute of Certified Management Consultants of Manitoba was passed by the Legislative Assembly of Manitoba. The Institute's mandate is to foster and promote the development and acceptance of the profession of management consulting, and to promote excellence in the practice of the profession for the benefit of members, clients and the community at large.

CAPABILITIES:
1) Develops and maintains accreditation standards governing entry into and sustained membership in the Institute.
2) Develops and enforces standards of professional consulting practice and ethical behavior.
3) Facilitates personal professional development of members.
4) Promotes full awareness and preferred utilization of CMC's in the market place.

PRODUCTS AND SERVICES:
The Institute can provide a referral and information service to organizations about certified management consultants in areas of Strategic Planning, Economics, Finance, Marketing, General Management, Human Resources, Information Systems and Operations Management.

MARKET:
Local.

INTEGRATED ENGINEERING SOFTWARE

347-435 Ellice Avenue
Winnipeg, Manitoba R3B 1Y6
Telephone #: (204) 942-5636
Fax #: (204) 944-8010

CONTACTS: Dr. Y. Bulent Yildir, President
Ms. Bennetta Benson, Sales and Marketing Manager
EMPLOYEES: 11-30

HISTORY:
Established in 1984, Integrated Engineering Software is a Canadian Research and Development Corporation specializing in the development and marketing of fully integrated interactive Computer-aided Engineering (CAE) 2D/3D software for electromagnetic field analysis. The software enables research engineers to engage in computerized simulation and testing prior to building a prototype. This process facilitates optimal design, maximizes efficiency and reduces costs for design engineers and their computers.
IES's main emphasis is on developing and enhancing products which offer high quality design, advanced technical capability and ease of use while providing excellent customer service and technical support. SEA Corporation has exclusively distributed IES software in Japan since 1990.

CAPABILITIES:
MAGNETO(2D) and AMPERES(3D) are magnetostatic field solvers used in the design and analysis of magnetic devices and components such as solenoids, AC/DC motors, transformers, recording heads, magnets and charging fixtures. The software caters to linear, nonlinear and permanent magnet materials. ELECTRO (2D) and COULOMB (3D) are electrostatic field solvers used in the design and analysis of electrical and electronic equipment including insulators, bushings, grounding electrodes, transmission lines, telecommunication cables, microstrips and integrated circuits.
IES programs are based on the Boundary Element Method (BEM) which is now recognized as one of the most powerful and advanced field solution algorithms available. The BEM is notable for its ease of use, minimal data input, and fast accurate solutions. It requires neither a finite element mesh nor an artificial truncation of the real problem. Each program is fully integrated around a convenient user interface and includes geometric modellers and static and quasi-static field solvers. Simple modifications of geometry permit streamlined problem solving. Unattended analysis of multiple "what if" scenarios is possible through the time-saving BATCH function. The IGES translator enables the user to exchange geometry files with CAD packages, thus eliminating repetitive modelling. The short learning curve means that productive time is not wasted in lengthy training sessions.

PRODUCTS AND SERVICES:
Electromagnetic field analysis software based on the Boundary Element Method; A 30 day no-charge, no obligation evaluation of IES software including full technical support.

MARKET:
Customers are from all parts of the world including Belgium, Canada, France, Germany, Japan, Korea, Kuwait, Netherlands, Norway, Spain, Switzerland, the United Kingdom and the United States.

INVENTRONICS LIMITED

Box 1135, 1420 Van Horne Avenue E.
Brandon, Manitoba R7A 6A4

Telephone #: (204) 728-2001
Fax #: (204) 726-0807

CONTACTS: Jim Brannan, General Manager (Brandon)
Gary Thompson, President

EMPLOYEES: Over 100

HISTORY:
The company was started in 1970 in Brandon. There is now a 45,000 square foot facility in Brandon, as well as at Edmonton, where the Head Office is located. Inventronics is a public company listed on the Toronto Stock Exchange. Total Quality Management was initiated in 1990.

CAPABILITIES:
Inventronics has a full design and development staff complete with an Auto CAD version II system. The company provides CNC programming for production, powder coating, wet painting, as well as electro-plating in Edmonton. A wide range of telecom and electronic cabinets and racking are manufactured in galvanized, cold rolled , hot rolled aluminum, and stainless. Inventronics can also warehouse and distribute products direct to the customer. Certified to AQUAP 4 and MIC I 45208A. In the process now of obtaining ISO9002.

PRODUCTS AND SERVICES:
CNC fabrication for metal, powder coating, electro plating, silk screening, tool and die design and build, telecom cabinets, electronic racks, CATV enclosures, and environmentally controlled cabinets.

MARKET:
Telecom markets are national and international including the U.S. and parts of Europe. Rack lines are sold across Canada and into the U.S. as well. Major customers are on an OEM basis.

IRIS SYSTEMS INC.

123 Bannatyne Avenue
Winnipeg, Manitoba R3B 0R3

Telephone #: (204) 947-9064
Fax #: (204) 943-9803

CONTACT: Michael Wiebe, President
EMPLOYEES: 11-30

HISTORY:

Iris Systems Inc. was founded in 1987 by Dennis Johnson and Michael Wiebe. Since inception, the firm has grown to a staff of 27, including 2 Ph.D., 5 Master and 13 Bachelor professionals. Iris has developed world class sensor and telecommunications technologies, many of which are covered by patents. The firm's clients include major research organizations and corporations in the U.S. and Canada. The firm's major focus is the application of its strategic strengths towards the automation of functions by using wireless communications in the utility and process control industries.

CAPABILITIES:

Iris' sensor and telecommunication capabilities fall into three major areas being: consulting; contract R & D; and proprietary product sales.

Iris' consulting skills encompass market, economic, techincal feasibility, regulatory, manufacturing and cost benefit analysis. The firm's in-house skills are augmented by a group of industry specialists located across North America. These experts are available to participate in the solution assignments with specialized needs.

Iris' contract R & D skills range from stand alone to hierarchical communication networks. The firm's staff have successfully undertaken projects ranging from optical sensor pointing systems for rocket payloads, point-to-point or multipoint satellite telecommunications and hierarchiacal radio networks. Iris is experienced at propagation model development, RF testing in its own anechoic chamber and control protocol development. Telecommunications media experience includes: 900 MHz; L,C and Kv band; fiber; coax; and twisted pair. The firm has extensive experience in a variety of modulation technologies including spread spectrum.

Iris has developed a revolutionary, cost effective, high reliability radio telemetry network. The firm's patented technology has been customized for use by utilities to gather data and/or control devices including meters, switches, valves, etc. The network has a variety of other potential applications in healthcare, process control, security and other markets. The firm is interested in adding to its existing strategic partnership to pursue new applications. Inquiries are invited.

PRODUCTS AND SERVICES:

Iris' primary product, called System 2020™, is a hierarchiacal 900 MHz, 2-way radio telecommunications network. The system features RF transmitter costs from $100 depending on application needs. Key technical attributes of the product include a long term 1.5ppm stability, 12.5 KHz channel, 2.4 Kbs data rate, greater than 99% reliability, battery powered operating and small size.

MARKET:
Iris' primary market is electric, gas and water utilities. The firm is currently active with a number of Fortune 500 customers in the U.S. and Canada. Iris' product, System 2020™ can be effective in a variety of other applications and the firm is interested in expanding its present strategic partnership base.

KELTEK PRINTED CIRCUIT

1961 Logan Avenue
Winnipeg, Manitoba R2R 0H8

Telephone #: (204) 694-0905

CONTACTS: Richard Dalebozik, Owner/Manager
Gale Dalebozik

EMPLOYEES: 1-10

HISTORY:
The company was established in 1978.

PRODUCTS AND SERVICES:
Custom manufacturing of single and double sided printed circuit boards; silk screen capability, acrylics and Lexan; chemical milling.

MARKET:
Local.

KRAUS INDUSTRIES LTD.

204 Day Street
Winnipeg, Manitoba R3C 1A8

Telex #: (204) 07 57829
Telephone #: (204) 224-1616
Fax #: (204) 222-0846

CONTACTS: Detlef Sachs, Manager of Operations
Hans Kraus, President

EMPLOYEES: 51-100

HISTORY:

Kraus Industries Ltd. is a 100 percent privately owned Canadian company founded in 1970. We have a work force of 50 to 75 employees of which aproximately 48 are directly involved in manufacturing, 7 work in our R & D department and the remaining 6 are supporting clerical staff. Kraus owns 100 percent of Computronics International, Command Start, Parkway Enterprises, Kraus Alternate Fuels Inc. and Spectrum Manufacturing.

CAPABILITIES:

Kraus Industries Ltd., designs, manufacturers and sells electronic products. We maintain an expert staff to carry on market research and the development of new products and to manufacture our existing products. The products we develop cover all realms of electronic and mechanical design but we consider ourselves to be specialists in microprocessor based equipment. We are geared to produce both small run and mass production quantities of product. All of our products are manufactured using a standard quality control system and thus the products we produce enjoy a very high degree of reliability. We hav automated through hole and surface mount equipment capability. Spectrum Manufacturing designs and manufacturers sheet metal products, all types of welding, and has a tool shop capable of manufacturing tooling dies. We also have spray painting capabilities. Spectrum has fully computerized cnc production facilities. Parkway Enterprises designs and manufacturers all types of wook related products, household and business furniture, and specialty items. Kraus Alternate Fuels Inc. builds and installs propane and compressed natural gas dispensing systems.

PRODUCTS AND SERVICES:

Products:
- self-serve equipment - Monitor 4, Micro II, Concept 5000 and Micon 100I.
- consumer products - Command Start, PE Alarm System and String Master.

Services:
- custom engineering electronic, mechanical, wood i.e. PE alarm system
- contract manufacturing electronic, mechanical, and wood i.e. Hughes Aircraft SRS Audio System.

MARKET:

Our customers include all major oil companies, a number of consumer oriented marketers and a number of OEMS. We also market our products directly in the USA and other countries.

KVA DYNAMO INC. (Formerly XYZ Dynamo Ltd.)

572 McTavish Street
Winnipeg, Manitoba R2J 2W5

Telephone #: (204) 237-4490
Fax #: (204) 233-5306

CONTACT: Dean Keating, General Manager
EMPLOYEES: 1-10

HISTORY:
Generally sales of Electronic Motor and Controls built by Toshiba. Now heavily involved in sales and service of AC and DC variable speed drives.

CAPABILITES:
Servicing of AC and DC drives, electronic power supplies including UPS, electrical and electronic controls, motors and generators, cranes, switchgear to 38KV.

PRODUCTS AND SERVICES:
Products: AC and DC motor, AC and DC variable speed drives, switchgear to 38KV, vacuum breaker retrofits.

MARKET:
Saskatchewan, Manitoba, and Northwestern Ontario.

LGS GROUP INC.

608-386 Broadway Avenue
Winnipeg, Manitoba R3C 3R6

Telephone #: (204) 947-3975
Fax #: (204) 942-6349

CONTACTS: Mr. Clare Cremer, Managing Director
Mr. Gary Craven, Director

EMPLOYEES: 11-30

HISTORY:

A Canadian owned company, founded in Montreal in 1979, and puolicly traded on the Montreal Stock Exchange. LGS employs approximately 700 professionals in 15 offices across Canada and in Europe. Since its inception, LGS has grown to be one of Canada's leading information systems consulting and services companies. LGS has built its reputation on the high quality of services which we deliver to our clients. We combine technical excellence with pragmatic, cost effective approach to solving business problems and managing technology.

CAPABILITIES:

The services of LGS have been designed to address each of the main functional areas within an Information Systems organization: Management Consulting, Information Systems Development, Technology Management Services and Office Systems. Systems Integration combines these LGS services to provide a total packaged solution to our clients' business and technology requirements. We also offer experience in Microcomputer Systems Services.

PRODUCTS AND SERVICES:

LGS has derived a proven approach to managing and conducting our assignments that has been packaged into a comprehensive set of methodologies called The Inspiration Series: in-PLAN-, for Strategic Information Systems Planning; in-ARCH, for Global Applications Architecture; in-DEV, for Systems Development Life Cycle; and in-PRO, for Project Management and Tracking. LGS has developed a software product which is marketed in conjunction with our consulting services. TRANS/FORM, is an Electronic Data Interchange (EDI) Software, developed in cooperation with our clients. It manages the communication interface between a company and its partners.

MARKET:

LGS experience ranges from highly technical competence to in-depth business knowledge of various sectors, including Financial Services, Manufacturing and Distribution, as well as Federal and Provincial Governments, Health and Education.

LINEAR SYSTEMS LTD.

1760 Sargent Avenue
Winnipeg, Manitoba R3H 0C7

Telephone #: (204) 783-2228
Fax #: (204) 783-0604

CONTACTS: Tom Thorsteinson, President
EMPLOYEES: 1-10

HISTORY:
Linear Systems Ltd. was formed in 1979 and began doing electronic consulting and industrial systems integration. Several projects were completed for the Potash industry in Saskatchewan during the first two years of operation. This included a Final Product Dispatch control system based on a multibus computer and a potash Ore Grade Monitor for portable and mining machine applications. Linear began manufacturing computer cards for Multibuss computers in 1981. SBX products were designed for industrial and commercial OEM applications and are supplied to many OEM clients mainly in the USA.

CAPABILITIES:
Linear began developing products for the PC/AT (ISA) bus in 1988. The initial products were for serial communications and this has continued to the present. Linear has engineering expertise in designing and manufacturing special I/O boards for the ISA bus computers. Special equipment for design and development includes DOLCH Logic Analyser, Halcyon 801A Mini Fox Protocol Analyser, Iniab 28A Universal Programmer, Tektronix Oscilloscope, etc. R & D staff includes two full-time development engineers. Total staff is 7 people.
Linear Systems Ltd. has approximately 4500 square feet of manufacturing facilities for small volume production. The facilities can support from 500 to 1000 boards per month throughput. Equipment includes washing facilities, board assembly facilities, 14 inch Wave Solder Machine, custom burn-in racks, etc. Production staff includes 1 assembler and 1 test technologist.

PRODUCTS AND SERVICES:
Linear Systems develops and manufacturers high performance serial communication cards based on the Am85C30 for ISA bus computers used in OEM applications. Serial data rates can range up to 1M bps.
HDLC/SDLC sample software and an HDLC LAP B Dos driver are available. Third party software is available for SNA 3270, HLLAPI, LU 6.2, Net-Thru, LU 0 X.25, QLLC, 3270 Bisync, TCP-IP and more.
QUAD LPT which gives 4 additional printer ports to ISA computers and the MAX I/O (available 1st Q 92) gives 4 serial and 4 parallel ports on a single card. NetWare, UNIX and DOS software is available. In addition, Linear also manufactures a 48M byte semiconductor disk board product.
Linear offers a board design engineering and manufacturing service with custom labelling available.

MARKET:
Canada, U.S. and Europe.

LINNET GRAPHICS INTERNATIONAL INC.

Suite 600-191 Broadway Avenue
Winnipeg, Manitoba R3C 3T8
Telephone #: (204) 957-7566
Fax #: (204) 957-7568

CONTACTS: Don I. MacIntyre, President
Alain Pare, Vice-President Marketing

EMPLOYEES: 31-50

HISTORY:

Linnet Graphics International Inc. is a Canadian company established in 1988 as a joint venture between SNC Inc. and The I.D. Group Inc. Linnet is headquartered in Winnipeg, Manitoba and has an office in Regina, Saskatchewan.

CAPABILITIES:

Linnet brings together two firms, SNC Inc. and The I.D. Group with international backgrounds involving a variety of disciplines. The parent companies, SNC and ID Group, contribute significant project management and GIS experience in areas such as agricultural engineering, environmental impact assessment, hazardous waste facility site selection, municipal engineering, socio-economical analysis, etc. all of which have great potential for the application of GIS technology. Staff from these companies are available to Linnet as required to address specific project requirements.

The parent companies also bring to bear major financial and marketing resources. While Linnet's corporate marketing efforts are centred in the headquarters office in Winnipeg, the strong national office structure of the parent companies is utilized as a base for regional marketing. An office has been established in Regina to service the Saskatchewan market. Additional marketing efforts are being carried out in conjuction with the operations of the parent companines to capitalize on GIS opportunities provided through engineering projects being undertaken nationally and internationally.

PRODUCTS AND SERVICES:

Linnet staff are a dedicated group of individuals with expertise in computer science, geographic information systems, automated mapping and facility management systems, survey engineering, systems integration, data conversion, management consulting, cost-benefit analysis, and project management. Staff members are familiar with and have used several of the major GIS vendor systems. The knowledge and experience of its staff members and the corporate resources of its parent companies enables Linnet to provide an integrated and comprehensive suite of services which few competitors can match.

MARKET:

City of Winnipeg and surrounding communities, Manitoba Hydro, Alberta, British Columbia, Ontario, North West Territories, Egypt, Peru and Thailand.

MANITOBA AEROSPACE GROUP

410-155 Carlton Street
Winnipeg, Manitoba R3C 3H8

Telephone #: (204) 945-2397
Fax #: (204) 957-1793

CONTACTS: M. Sloane, President
R. Hamaberg, Treasurer, R. A. Jack, Co-ordinator

HISTORY:

The M.A.G. is an informal industry association made up of companies involved with the manufacture, repair and overhaul, supply of services, etc. to the aerospace and space industries. One of the main objectives of the M.A.G. is the promotion of the capabilities of the members. The aerospace industry in Manitoba produces goods and services worth almost one-half billion dollars annually and employs about 5000 directly. The Group has been instrumental in raising the profile of the aerospace industry both within and outside Manitoba and provides an effective voice on matters which affect the future growth of the industry.

MANITOBA GOVERNMENT EMPLOYEES ASSOCIATION

601-275 Broadway Avenue
Winnipeg, Manitoba R3C 9Z9

Telephone #: (204) 982-6432
Fax #: (204) 942-2146

CONTACT: Stephen Roznowsky, Chairperson Technological Change Committee
MEMBERS: Over 100

HISTORY:
This Association began as a social club half a century ago and grew into Manitoba's largest union representing Provincial Government employees and employees of Crown Corporations. Fifty years ago it started with only a handful of members and has now grown into a membership of 20,000.

CAPABILITIES, PRODUCTS AND SERVICES:
This public service union negotiates and services the various components within government departments. As any service in Manitoba functions, the MGEA also educates its membership on various labour related issues such as health and safety, technological change, womens issues, workers rights, etc. Labour also plays an advocate role within modern day society. Labour as a voice speaks out on issues concerning health care, care for the elderly, human rights, etc.

MANITOBA HVDC RESEARCH CENTRE

400-1619 Pembina Highway
Winnipeg, Manitoba R3T 2G5

Telephone #: (204) 284-8240
Fax #: (204) 453-5074

CONTACTS: D. A. Woodford, Executive Director
R. R. Hunter, Manager of Administration

EMPLOYEES: 11-30

HISTORY:
Established in 1981 as an independent not for profit organization, the mandate of the Centre is to assist Manitoba and Canadian industry by conducting analytical and developmental research primarily in the field of high voltage direct current transmission. The Centre is collaboratively sponsored by Manitoba Hydro, Federal Pioneer, Teshmont Consultants Inc., and the University of Manitoba.

CAPABILITIES:
Under contract to third parties or on a cooperative basis, the Centre has the facilities and expert manpower to serve as a specialized resource to utilities, manufacturers and consultants in the area of simulation and analysis, insulation and overvoltages, transmission and enviornmental effects and innovative application of apparatus in DC and related systems. In addition to an Analog Simulator and Real Time Digital Simulator or TNA, the Centre has access to laboratories and facilities of the sponsors.

PRODUCTS AND SERVICES:
The Centre has developed a parallel processing based real time digital simulator or TNA capable of studying electromagnetic transients of electric power systems in 50 micro second time steps. This equipment is compact and has numerous unique applications.

MARKET:
Worldwide.

MANITOBA HYDRO

820 Taylor Avenue
Winnipeg, Manitoba R3C 2P4

Telephone #: (204) 474-3465
Fax #: (204) 474-4854

CONTACT: R. L. Ludwick, Research & Development Planning Officer
EMPLOYEES: Over 100

HISTORY:
Manitoba Hydro provides power for the consumers of Manitoba now and well into the future.

CAPABILITIES:
The Corporation has a capability for electronic design and fabrication to meet its own needs of self sufficiency. The main areas are telecontrol communication and electronic control of power systems.

PRODUCTS AND SERVICES:
Generally Manitoba Hydro produces electronic products and services for its own requirements. Sometimes a device may be offered to the power utility industry if there is a need.

MANITOBA SOCIETY OF CERTIFIED ENGINEERING TECHNICIANS AND TECHNOLOGIES INC. (MANSCETT)

Ste. 5 - 1767 Portage Avenue
Winnipeg, Manitoba R3J 0E7
Telephone #: (204) 885-2788
Fax #: (204) 831-5170

CONTACT: Terry Whiteman, C.E.T., Executive
MEMBERS: Over 100

HISTORY:
MANCETT, incorporated in 1965, is the certifying body for Engineering Technicians and Engineering Technologists in Manitoba. The Society is affiliated with the Canadian Council of Technicians and Technologists (CCTT) representing over 40,000 Technicians and Technologists in Canada.
Members are certified to national standards based on academic training and related employment experience. In Manitoba, Certified members use the designation C.E.T.

CAPABILITIES:
Certified members are capable of assuming responsibility and of exercising independent judgment in the field of Engineering or Applied Science in which they are trained. Engineering Technicians and Technologists have post-secondary training in the principles of Applied Mathematics, Applied Engineering and Science. They must have a minimum of two years of relevant experience in the application of these principles to obtain certification.

PRODUCTS AND SERVICES:
MANCETT has initiated an Employment Referral Service -- PROVIDED WITHOUT CHARGE TO PROSPECTIVE EMPLOYERS. We are in a position to assist employers in locating qualified persons.

MARKET:
Areas include: Aeronautical, Civil, Computer, Construction, Design and Drafting, Electrical, Electronic, Forestry, Instrumentation, Mechanical, Petroleum, Structural and Surveying.

MANITOBA SOFTWARE ASSOCIATION

414-435 Ellice Avenue
Winnipeg, Manitoba R3B 1Y6

Telephone #: (204) 944-8868
Fax#: (204) 943-9206

CONTACT: Pat Binns, President
MEMBERS: 51-100
PRODUCTS AND SERVICES:
To encourage, promote and stimulate the development and growth of the Manitoba Software Industry.

MANITOBA TECHNICAL TRAINING CENTRE

607-352 Donald Street
Winnipeg, Manitoba R3B 2H8

Telephone #: (204) 942-1773
Fax #: (204) 942-1134

CONTACT: Ann Thomson
EMPLOYEES: 11-30

HISTORY:
Since its inception in 1983, MTTC has provided training to more than 2,000 business and industry clients.

CAPABILITIES:
What makes MTTC unique and attractive to many adult learners is its flexibility in customizing curriculums and its individualized computer-aided training system. Course offerings range from Microcomputer Software Applications, Financial Management, Electronics, Robotics and Programmable Controllers. Industrial courses are a combination of theory and hands-on training. Trainees can then readily adapt their training experience to equipment in their workplace. Graduates receive an Award or Certificate signed by the Minister of Education. State of the art office automation is utilized to provide training that is consistent and tailored to individual needs.

MARKET:
Business and Industry - Boeing, Bristol Aerospace, CNR, Manitoba Rolling Mills, Federal Government - Target groups i.e. Native Women, Displaced Workers, Consumer.

MANITOBA TELEPHONE SYSTEM

P.O. Box 6666
Winnipeg, Manitoba R3C 3V6

Telephone #: (204) 941-7207
Fax #: (204) 284-0527

CONTACT: Barry Gordon, Vice-President Network Services
EMPLOYEES: Over 100

HISTORY:
The Manitoba Telephone System is a provincially owned Crown Corporation. It began in 1908 and presently employs over 5000 people. Its mandate is "to meet the telecommunications needs of all Manitobans with the right solutions, outstanding service, and superior products."

CAPABILITIES:
Communication facilities, products and services - voice, data, image, terminals and systems. Lease, sales, service, installation, maintenance, and consulting.

PRODUCTS AND SERVICES:
Cellular, videoconferencing, voice mail, portfolio of network products, portfolio of customer premises products and services, partner with other companies for products and services i.e. cellular, alarms, fax.

MARKET:
Province of Manitoba, National Systems Group, Member-Telecom Canada.

MAXIM COMPUTER SYSTEMS

1904 One Evergreen Place
Winnipeg, Manitoba R3L 0E9
Telephone #: (204) 453-7199
Fax #: (204) 453-7622

CONTACT: Arthur Arkin, President
EMPLOYEES: 1-10

HISTORY:
The company was founded in Winnnipeg approximately 40 years ago as Continental Assets Ltd. For the past, approximately 10 years, it has traded as Maxim Computer Systems and Nikra Software, with business software development and systems engineering and installation as its main business.

CAPABILITIES, PRODUCTS AND SERVICES:
A software developer with long experience in developing DOS-based database software solutions for particular needs. Although best known for its automotive, electric motor, electronic repair, and MaxiDENT dental office management systems, Maxim specializes in providing solutions where available software does not meet the user's specific or unique needs.
Users may select from: current software packages, customized software modified from Maxim's extensive software library, or custom software written to the user's specifications.
Software can be purchased separately, or packaged with integrated hardware, installation, training, and support options.
Operating hardware: DOS, IBM compatibles and network supported.

MARKET:
The company sells and supports its products across Canada, and in the U.S.A. The company's clients are largely business firms and health care professionals. Recently the company has produced products for individual use.

MITEL CORPORATION

Suite 1800, 155 Carlton Street
Winnipeg, Manitoba R3C 3H8

Telephone #: (204) 957-1400
Fax #: (204) 957-1218

CONTACT: Colin J. Wymes, Sales Manager
EMPLOYEES: 1-10 (In Manitoba)
Over 100 (Worldwide)

HISTORY:
Mitel Corporation, a Canadian company based in Kanata, Ontario, Canada. Mitel is an international manufacturer of sophisticated, reliable business telecommunications systems, public switching systems and semiconductor products with annual revenues of more than $425 million (Cdn). Over 155,000 Mitel telecommunication systems have been sold in over 100 countries. Demonstrating its commitment to quality, Mitel Corporation's manufacturing facilities in Kanata, Canada; the United States and the United Kingdom have been ISO-certified, meeting stringent quality requirements set forth by the International Standards Organization of Geneva, Switzerland.

CAPABILITIES:
Small, medium and large business telephone system (PABX) manufacturer; telecommunications software developer; specialized telecommunications device manufacturer.

PRODUCTS AND SERVICES:
Telephones and telephone systems (all sizes), specialized telecommunications equipment (i.e. voice mail), central office telephone systems (small), telecommunications networks products, telecommunications semi-conductor components and telecommunications software and software development.

MARKET:
Canada, U.S.A., U.K., Pacific Rim, 90 other countries worldwide.

MONAC INTERNATIONAL CORPORATION

435 Ellice Avenue
Winnipeg, Manitoba R3B 1Y6

Telephone #: (204) 943-6797
Fax #: (204) 949-9021

CONTACTS: Dave Peacock, Sales Manager
Dr. Erling Nyborg, Managing Director

EMPLOYEES: 11-30

HISTORY:
Formed in 1987, public in 1989 to research , develop and commercialize acoustic emission non destructive testing for structural integrity of complex engineered structures.
Subsidaries: Sound Linked Data - Smart System for hearing and tests, Abtech International - AIM (Artifical Intelligence Software)

CAPABILITIES:
Sales, service and R & D on NDT testing methods for transportation, military, aircraft, utility and industrial market segments. System incorporates pattern recognition and artifical intelligence software.

PRODUCTS AND SERVICES:
NDT using acoustic emission, pattern recognition and AI technology.

MARKET:
Utility, Transportation, Aerospace, Mining, Forest.

NATIONAL BANK LEASING INC.

4th Floor, 191 Lombard Avenue
Winnipeg, Manitoba R3B 0X1

Telephone #: (204) 946-1660
Fax #: (204) 946-1662

CONTACTS: Ray Prefontaine, Account Manager - Industrial
Colin Taylor, Senior Manager - Industrial

EMPLOYEES: 1-10 (locally)

HISTORY:
National Bank Leasing Inc. (NBLI) is a wholly owned subsidiary of National Bank of Canada. NBLI was established in 1948 and has 21 offices throughout Canada.

CAPABILITIES:
As Canada's premiere leasing company, NBLI brings together a team of Account Managers who specialize in equipment financing. Our specialists will listen to your ideas, analyze your needs and help you develop an ideal financial plan that takes into account the intended use of the equipment, your cash flow, your tax and financial position. Competitive rates, flexible terms, speedy processing and professional account managers are only a few of the advantages offered by NBLI.

PRODUCTS AND SERVICES:
NBLI offers three main financing methods: leasing; conditional sales contracts for both new and used equipment; and chattel mortgages for working capital loans and refinancings.

MARKET:
Winnipeg branch's market is Manitoba and North-West Ontario to Thunder Bay.

NORSCAN INSTRUMENTS LTD.

7 Terracon Place
Winnipeg, Manitoba R2J 4B3

Telephone #: (204) 233-9138
Fax #: (204) 233-9188

CONTACTS: Ken Sontag, President
Danny Deleurme, Quality Manager

EMPLOYEES: 1-10

CAPABILITIES:
Manufacturer computerized moisture detection devices for fibre optics.

MARKET:
National and international.

NORTHERN TELECOM

1455 Mountain Avenue
Winnipeg, Manitoba R2X 2Y9

Telephone #: (204) 633-7200
Fax #: (204) 631-7290

CONTACTS: Mark Fouillard, P. Eng., Excellence! Site Prime
Maureen Presner, Plant Manager

EMPLOYEES: Over 100

HISTORY:
Northern Telecom began its existence nearly a century ago as the manufacturing arm of Bell Canada; it has since evolved into a global corporation that employs 60,000 people worldwide.
We're recognized today as a world leader in introducing major technological advances and product innovations to the global marketplace. We have extensive operations and customers across North America, Europe, the Asia/Pacific region, the Carribean and throughout Latin America. Our products are sold in more than 90 countries.
Our research and development is conducted by our Bell-Northern Research subsidiary - one of the world's premiere industrial research organizations with 7,000 employees and R & D facilities in North America and other regions of the world. Our R & D expenditures account for approximately 12% of annual revenues, or nearly $800 million in 1990.

PRODUCTS:
In the 1980's, during the first wave of the Information Age - the digital age - Northern Telecom led the telecommunications industry by becoming the first company to introduce a complete family of switching products based on digital technology. The success of our Digital World products established us as a major player in the North American market.

OLAFSON AGENCY

1440 Bannatyne Avenue West
Winnipeg, Manitoba R3E 0X2

Telephone #: (204) 775-3354
Fax #: (204) 694-7243

CONTACT: A. Keith Olafson, President
EMPLOYEES: 1-10

CAPABILITIES:
Manufacturers' Representative Electronics.

PARAMAX SYSTEMS CANADA

200 Saulteaux Crescent
Winnipeg, Manitoba R3J 3W3

Telephone #: (204) 831-3100
Fax #: (204) 831-7281

CONTACTS: Glen E. Johnson, General Manager
Albert Cerqueira, Business Development

EMPLOYEES: Over 100

HISTORY:

Paramax Systems Canada was formed on October 30, 1991 and was formerly Unisys Canada Inc., Defence Systems, a subsidiary of Unisys Corporation which formed in January, 1987 by the merger of two world leaders in the information processing industry, Sperry and Burroughs. Sperry Defence Products started a small organization in Winnipeg in 1977 and is considered the roots of our western operation.

CAPABILITIES:

Paramax Systems Canada offers customers a full range of engineering and manufacturing capabilities, with precision equipment capable of handling all aspects of MIL-SPEC hardware design and assembly, software engineering, including quality assurance, integrated logistics support, environmental stress screening, test engineering, production engineering, production/material/procurement control, configuration/data/management, prototype assembly, sub-assembly test, final test and subsystem integration.

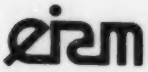
PRODUCTS AND SERVICES:

Paramax Systems Canada is the supplier of naval standard computer and MIL-SPEC LAN hardware for the Canadian Navy. We provide MIL-SPEC build to print services, full electronic publishing capability utilizing the Interleaf system and a full range of test, repair and overhaul capabilities.

MARKET:

Our major market is National and International Military Programs for information processing and data displays for Command and Control Systems. In addition, large build to print programs for USN and Canadian/American Air Defence Systems maintain a competitive and technologically modern manufacturing capability.

PEAT MARWICK STEVENSON & KELLOGG



800-200 Graham Avenue
Winnipeg, Manitoba R3C 4M1

Telephone #: (204) 944-1014
Fax #: (204) 943-4713

CONTACT: Lynn Raskin-Levine, Managing Partner
EMPLOYEES: Over 100

HISTORY:
Peat Marwick Stevenson & Kellogg is an employee-owned Canadian firm of management consultants. Together with Peat Marwick Thorne, Chartered Accountants, it is Canada's largest professional services firm. The origins of the firm go back to 1907. Its long record of dedicated service has built it into a nationwide network of offices with some 400 professionals in various specialties.

CAPABILITIES:
Strategic planning, market research/strategy for high tech companies, business plans and funding submissions, financial planning, organizational and operational reviews, total quality management, advanced manufacturing technologies, human resources, information systems, public policy, career consultancy and relocation.

PRODUCTS AND SERVICES:
Strategic alliances with Regis McKena Inc. - high tech marketing and; Bywater Group (United Kingdom) - total quality management.

MARKET:
A complete range of private and public sector clients locally, nationally and internationally.

PRECISION METALCRAFT INC.

72 Parklane Avenue
Winnipeg, Manitoba R2R 0K2

Telephone #: (204) 694-7200
Fax #: (204) 694-5123

CONTACT: Matt Kaufmann, Vice-President
EMPLOYEES: 11-30

HISTORY:
Company started in mid 1987 to supply and service OEM sheet metal fabrication market.

CAPABILITIES:
Precision CNC fabrication of sheet metal parts. Suppliers of electro-mechanical components to OEM's design and layout of prototypes. High quality and on-time delivery, utilizing the most advanced CNC fabricating equipment. Precision can also weld components. We offer decorative painting to your specifications. Plating and silk screening are a daily routine.

PRODUCTS AND SERVICES:
DNC shearing centre, Vipros turret punch press, paint pretreatment line. Our fabricating expertise is complimented by a complete CAD/CAM and quality control system based on AQAP 4.

MARKET:
Major electronic assembly plants, major medical equipment manufacturers, government agencies, aerospace, and telephone and hydro utilities.

PROBE INDUSTRIAL ELECTRONICS LTD.

1874 Portage Avenue
Winnipeg, Manitoba R3J 0H2

Telephone #: (204) 885-9320
Fax #: (204) 888-7551

CONTACTS: Richard M. Lord, P. Eng., President
Stan Nowak, P. Eng., Senior Electronic Engineer

EMPLOYEES: 1-10

HISTORY:
Founded in 1982, and incorporated in 1985, Probe Industrial Electronics Ltd. is owned and managed by Rick M. Lord, P. Eng., President. Over the years, the Corporation has become recognized as a respected supplier of Industrial Electronic Repair & Calibration serves to Winnipeg's Industrial community.

CAPABILITIES:
Fast field service to Industrial Electronic Equipment, Systems and Process Controls. Fast laboratory service to Industrial Controls, Electronic Instruments and Printed Circuit Boards. Electronic Calibration traceable to the National Research Council in Ottawa. Professional Engineering Design, Analysis, Studies and Investigations. Factory Authorized Repair Depot for 3 lines of Instrumentation. Factory Authorized Repair Depot for 6 lines of Motor Speed Controls. Preventative Maintenance Plans for Process Control Systems.

PRODUCTS AND SERVICES:
Calibration services traceable to NRC in volts, ohms, amps, frequency, time, inductance, capacitance, decibels, watts, power factor, length, temperature, conductivity and pH. Extensive technical library of semiconductor cross-references. 1000's of schematics for industrial electronic equipment and instrumentation. Specialists in fast field & lab service to industry. Repairs to Surface Mount and Microprocessor-based technology. Federally-approved Quality Assurance Plan.

MARKET:
Manitoba manufacturers, industry, mining, foundries, pulp & paper, utilities, telecommunications, aerospace, printing, metalworking, electricians, electronics, packaging, photographers, food processing, garment, plastics, farm, contractors; Saskatchewan, Manitoba and North Western Ontario.

QUANTIC LABORATORIES INC.

12th Floor, 191 Lombard Avenue
Winnipeg, Manitoba R3B 0X1

Telephone #: (204) 942-4000
Fax #: (204) 957-1158

CONTACTS: Dr. Al Wexler, President
Curtis M. Rebizant, Product Marketing Manager

EMPLOYEES: 11-30

HISTORY:

Quantic Laboratories Inc., established in 1983, is the world's leading supplier of software tools for transmission-line simulation of electromagnetic interference effects on printed circuit boards, hybrid and integrated circuits, cables, connectors, and other interconnect media.

PRODUCTS AND SERVICES:

BoardScan is a circuit simulation tool that automatically screens PCBs for critical nets with potential crosstalk, signal integrity, and timing problems. It provides printed circuit board and digital logic designers with the extended simulation capabilities they need to cut costly prototyping and time-consuming board iterations.

BoardScan produces a comprehensive net report listing key parameters that designers need to know, including crosstalk, time delays, overshoots, undershoots, settling time, noise margins, and functional violations.

Input to BoardScan is through an easily-generated interface file integrated with major electronic design automation software tools.

BoardScan features an interactive database facility that lets you add, delete, substitute, and browse through the component library within the user interface. Library components cover a range of technologies such as TTL, CMOS, ECL, BiCMOS, and BTL.

Once BoardScan has identified critical nets, they can be analyzed in further detail with Greenfield, Quantic's transmission-line system-level simulator. In combination, BoardScan and Greenfield form a full-spectrum transmission-line simulation capability.

Greenfield is a comprehensive system-level software simulator for verification of systems of PCBs, cables, connectors, hybrid and integrated circuits, and other interconnect media operating under high-speed switching conditions.

It has unique capabilities in simulating circuits with multiconductor, coupled transmission lines. It includes a schematic and graphics editor that allows convenient interconnection editing of system components. And it accepts critical nets identified by BoardScan, Quantic's PCB screening tool.

Greenfield and BoardScan are integrated with major layout tools for full-spectrum, integrated high-speed digital simulation capability.

MARKET:

Electronic companies designing high-speed systems; PCBs, cables, connectors, packages, hybrid and other interconnect systems. Industries include systems and defence, cable and connectors, computer manufacturers and IC designers. Regions include North America, Europe, Asia.

RED RIVER COMMUNITY COLLEGE

2055 Notre Dame Avenue
Winnipeg, Manitoba R3H 0J9

Telephone #: (204) 632-2272/2291
Fax #: (204) 632-6075

CONTACTS: Ken Webb, Dean - Technology
Martin Mayer, Head - Electronic Technology

EMPLOYEES: Over 100

CAPABILITIES:
Industrial taining, customized training in electronics, computers (hardware & software), PLC, expert systems at customer's site or on campus.

PRODUCTS AND SERVICES:
Specialty training: PLC, expert systems, C++, motor controls, computer networks, general electrical/eletronic/computer subjects.

MARKET:
Winnipeg, Manitoba in general.

RESCOM

201-743 Ellice Avenue
Winnipeg, Manitoba R3G 0R3

Telephone #: (204) 783-4614
Fax #: (204) 783-0021

CONTACTS: Ed Prefontaine, President
Doug Mann, Executive Vice-President

EMPLOYEES: 11-30

HISTORY:
Started operations in 1984. Presently has a staff of 17 employees. Specializes in the development of financial software, focusing on the brokerage and asset management sectors. Markets developed in North America, the United Kingdom, Australia and Asia. 1991 sales in the $1-1.5 Million range. Key products are MarketMate and International Manager.

CAPABILITIES:
Current key products are MarketMate for the North American stock brokerage industry and International Manager for asset management groups on a global basis. The company does custom development, focusing on the key products and also can develop unrelated financial applications. The two key operating systems for development are DOS for the personal computer market and UNIX/AIX for mid range machines. The company is an IBM Business Partner offering solutions on the IBM PC, IBM PS/2 and the IBM RISC 6000 platforms.

PRODUCTS AND SERVICES:
MarketMate - an integrated brokerage workstation package for the desk of the North American stockbroker. Package integrates with live market pricing and back office accounting services.
International Manager - a multiple currency portfolio management and accounting package for asset management groups within banks, trust companies, fund management firms, investment firms, etc.

MARKET:
MarketMate - Canada and the United States
International Manager - Global market

ROSS ELECTRONIC SUPPLY LTD.

540 Roseberry Street
Winnipeg, Manitoba R3H 0T1

Telephone #: (204) 783-2088
Fax #: (204) 783-0819

CONTACTS: Eldon Ross, General Manager
Marvin Miller, Purchaser

EMPLOYEES: 11-30

HISTORY:

Ross Electronic Supply Ltd. was established in 1966 by Eldon and Carol Ross from their home. The focus of their business was the distribution of television parts and accessories to the TV service outlets in the Winnipeg area. A steady growth pattern took place, enabling Ross Electronic Supply Ltd. to move to Hargrave Street, after three months.

Soon, it was decided that a new location for the company would be needed, as the present office was getting too small for the amount of staff needed to handle the workload. In 1976, it was decided to make the move to their current location at 540 Roseberry Street in St. James. Taking advantage of the extra space of the new location, Mr. Ross doubled the size of his staff to service the increased workload. In the years since, the number of employees has increased and with their dedication, the business that he started in the basement of his home is a continuing success.

CAPABILITIES:

The policy of Ross Electronic Supply Ltd. is to provide service to the Electronic Industry as a stocking distributor.

PRODUCTS AND SERVICES:

This policy, along with efficient staff and quality lines stocked in depth, fill the service mens' needs, making Ross Electronic Supply Ltd. the "One-Stop-Parts-Supplier."

MARKET:

Distribution by Ross Electronic Supply Ltd. now covers the Lakehead Region and all of Western Canada.

SCIENCE/TECHNOLOGY AWARENESS NETWORK INC.

413-435 Ellice Avenue
Winnipeg, Manitoba R3B 1Y6

Telephone #: (204) 943-8482
Fax #: (204) 943-9206

CONTACTS: Charlene Okell, Program Coordinator
Al Snyder, Chairman

EMPLOYEES: 1-10

HISTORY:
STAN Inc. was established in 1989, responding to a need for awareness of science and technology in the business community. In 1991, STAN was incorporated as a non-profit organization and a board of directors was appointed.

CAPABILITIES:
The mandate of STAN Inc. is to increase the awareness of existing and evolving technologies within industry, education and government. Emphasis is placed on the strengthening of business performance through the application, adoption or adaptation of technology.

SERVICES:
Logistical, financial and promotional assistance is provided to Manitoba organizations and companies to stage events, seminars and educational opportunities focused on the transfer of technology.

MARKET:
Any Manitoba based organizations and industries concerned with the transfer of evolving technologies is eligible for assistance from STAN Inc.

S.D.S. TECHNICAL DEVICES LTD.

471 College Avenue
Winnipeg, Manitoba R2W 1M7

Telephone #: (204) 589-7507
Fax #: (204) 582-5964

CONTACT: Mr. Ron Tayler, President
EMPLOYEES: 1-10

HISTORY:
Established in 1970, S.D.S. manufactured bed wetting alarms, intrusion alarms, serviced radar, and traffic verification computers. Installation of all types of alarm systems, intercoms, P.A. systems, industrial controls and specialized circuits, computer cabling, MATV, CATV and CCTV systems.

CAPABILITIES:
Design, manufacturing, installation and servie of all types of alarms, intercoms and related as above.

PRODUCTS AND SERVICES:
Alarms - burglar, fire, medical, temperature, flood; Music Systems - Nutone, custom design; Intercoms - Alphone, Nutone; Central Vacuums - Nutone; Design, manufacture and install electronic systems.

MARKET:
Manitoba and Canada.

SINCLAIR RADIO LABORATORIES LTD.

1410 Erin Street
Winnipeg, Manitoba R3E 2S8

Telephone #: (204) 783-9772
Fax #: (204) 775-9472

CONTACTS: David Schaan, Sales Manager - Midwest Region
Ann Martens, Order Desk/Administration

EMPLOYEES: 1-10 (In Winnipeg)
Over 100 (Total Company)

HISTORY:
Winnipeg is a branch office of Sinclair Radio Labs out of Aurora, Ontario. Our head office manufacturing plant employs 100 + people.

CAPABILITIES:
We manufacture antennas, transmitter combiners, receiver multicouplers, duplexer, and cavity filters for communications systems. We have the capabilities for designing and manufacturing new products in this field, and also we get involved in system design.

MARKET:
We have 6 offices across Canada, 4 offices in the U.S.A. and sell in the North American market, as well as around the world.

SOFTWRITE DOCUMENTING

P. O. Box 175
Dugald, Manitoba R0E 0K0

Telephone #: (204) 755-3493
Fax #: (204) 755-3493

CONTACT: Susan Haire, Owner-Author
EMPLOYEES: 1-10

HISTORY:
The company was started in 1987 to meet the needs of software developers who wanted professional documentation for their products. First client was Air Canada, who required updates to computer software and hardware manuals to support their upgraded Reservations System. Projects since then have ranged from small (50 pages) user manuals for custom video software to participation in a major documentation project for a major software supplier. I am currently preparing the master copy of the monthly newletter for the Manitoba Software Association.

CAPABILITIES:
I research, design and write "user-friendly" documentation primarily for computer software. I have written several books for esc (small) enterprises in their software learning guide series. One of these books, in the Word Perfect series, won an award of excellence at the provincial level in the 1990/91 Technical Publications competition of the Society for Technical Communication.

PRODUCTS AND SERVICES:
Services include design and production of user documents. Additional services include desktop publishing of final documents.

MARKET:
Market is national, anywhere in Canada, although most of my clients are from Manitoba.

SOUTH WINNIPEG TECHNICAL CENTRE

130 Henlow Bay
Winnipeg, Manitoba R3T 4M6

Telephone #: (204) 989-6509
Fax #: (204) 488-4152

CONTACTS: Leonare Harapiak, Director
Jose Bettencourt, Instructor

EMPLOYEES: 51-100

HISTORY:
South Winnipeg Technical Centre is a publicly owned facility which was established in 1985.

CAPABILITIES:
South Winnipeg Technical Centre is an educational facility which delivers competency based learning opportunities in response to the needs of secondary students, post-secondary students and industries.

PRODUCTS AND SERVICES:
Competency based instruction designed to prepare individuals for entry into the workforce.

MARKET:
Manitoba, with a focus on Winnipeg.

SYSTEMHOUSE

350-363 Broadway Avenue
Winnipeg, Manitoba R3C 3N9

Telephone #: (204) 944-9166
Fax #: (204) 943-2765

CONTACT: Tom Hiebert, General Manager
EMPLOYEES: 51-100

HISTORY:
Systemhouse was founded in Canada in July, 1974 with the goal of creating a business which would relate to info-requirements of computer users to the state of the art in hardware and software technology. In 1978, Systemhouse was established in the U.S. In 1981, Systemhouse became a public company. In 1987, Systemhouse established its Europlan operations. We currently have 15 branch offices in North America. Principal Head Office is located in Ottawa, while the Head Office for the U.S. subsidiary is in Arlington, Washington.

MARKET:
Insurance, Government, Postal Service, Banks/Financial Institutions, Telecommunications, Human Services, Motor Vehicle, Oil & Gas, Hospitals, and Fire & Ambulance.

TECHNICAL PRODUCTS INTERNATIONAL

90 Durand Road
Winnipeg, Manitoba R2J 3T2

Telephone #: (204) 669-6690
Fax #: (204) 661-8657

CONTACTS: F. W. Wellink, President
R. A. Mellon, Operations Manager

EMPLOYEES: 11-30

HISTORY:
Technical Products International, a leading Canadian manufacturer of cable assemblies was Incorporated in the Province of Manitoba, in May of 1980 by Frank Wellink.

CAPABILITIES:
Technical Products International specializes in the manufacturing of custom and standard electronic cable assemblies, which feature injection molded ends and other electronic parts requiring insert injection molding.

PRODUCTS AND SERVICES:
Technical Products International has acquired an extensive amount of machining equipment in order to manufacture molds used in inset injection molding; additionally we have developed a process of using epoxy molds for prototypes and short productions runs.

MARKET:
Canada, United States and Europe.

TELLIER ELECTRONICS LTD.

1388 Spruce Street
Winnipeg, Manitoba R3E 2V7

Telephone #: (204) 774-1741
Fax #: (204) 783-3185

CONTACT: Tim Tellier, President
EMPLOYEES: 1-10

HISTORY:
Began designing and manufacturing alarm equipment for a local alarm company. Expanded capabilities and equipment to supply a national market for advanced alarm and monitoring equipment. Designed and manufactured an IBM compatible personal computer in 1985.

CAPABILITIES:
Primarily involved in the design and manufacture of microprocessor based electronics. Developed and produce complete lines of products for two local companies. Provide industry with advanced alarm and monitoring equipment. A Bitbus controller along with support hardware has been developed and is being produced. Also, subcontract the assembly and testing of PC boards and electronic sub-assemblies. The R & D department is experienced in design, development of prototypes, software generation, and PC board layouts. Assembly and testing of products is done in our complete manufacturing and service department. Also, a complete IBM compatible computer sales and service department. Custom build computers tailored to the individual application with in stock items. Our Commercial client base serviced quickly by the trained staff in the shop or in the field if necessary.

PRODUCTS AND SERVICES:
Wave soldering equipment; logic analyzer; repair and test shop; CAD software; multi-tasking, multi-user computer network; software development tools; IBM compatible computers and accessories.

MARKET:
Alarm systems, process control, temperature control, environmental control, and IBM compatible computers and accessories.

TESHMONT CONSULTANTS INC.

7-1146 Waverley Street
Winnipeg, Manitoba R3T 0P4

Telephone #: (204) 284-8100
Fax #: (204) 475-4601

CONTACTS: Jack Scriven, President
Donna Lowrie, Executive Assistant

EMPLOYEES: 31-50

HISTORY:
Teshmont Consultants Inc. was established in 1966 by Canadian engineering consultants, who pooled their expertise to form a company specificaly for the design and management of construction of large EHV transmission systems, with particular emphasis on HVDC power transmission.
With its staff of experienced professional engineers, Teshmont combines the engineering and technical disciplines necessary for the study, design and construction supervision of major EHV transmission systems anywhere in the world, and is supported by a highly capable project management group with comprehensive experience in scheduling, procurement, inspection and financial management of large utility projects.

CAPABILITIES:
Engineering services for extra high voltage AC and high voltage DC transmission systems including feasibility studies, design procurement, commissioning and project management.

PRODUCTS AND SERVICES:
Study, design, procurement, engineering, construction supervision and commission of high voltage electrical transmission systems.

MARKET:
Worldwide.

THE COMPUTER PAPER

130 Scott Street
Winnipeg, Manitoba R3L 0K8

Telephone #: (204) 949-7720
Fax #: (204) 949-7721

CONTACT: Suzanne Fitzgerald, Regional Manager
EMPLOYEES: 11-30

HISTORY:
In its 5th year of publication, The Computer Paper is considered the bible of the computer retail trade in Western Canada. The Computer Paper began as a home based business. Now, the Vancouver-based newspaper had four separate editions in Toronto, British Columbia, Alberta and Manitoba. A total of 184,000 copies are distributed monthly.

CAPABILITIES:
The Computer Paper is Canada's computer information source. It provides a Canadian focus on current computing products and issues which are not comprehensively covered in other local publications or in the American computer press. The paper gives computer advertisers a regionally-based, reasonably priced forum for their products and services. National advertisers can benefit by one-stop shopping to reach a large portion of the Canadiian computer market through The Computer Paper.
The Computer Paper provides the must-know, hands-on computer news, features, events and reviews that today's Canadian computer consumers are looking for. It is designed to be readable, accessible and thoroughly indispensable for computer purchases.

PRODUCTS AND SERVICES:
The main function of The Computer Paper is a forum for advertisers to promote their products to a qualified and focused audience. Advertisers can choose to promote their product in the major Canadian cities including Toronto, Vancouver, Calgary, Edmonton and Winnipeg.

MARKET:
The Computer Paper has established a wide readership in Toronto, Vancouver, Calgary, Edmonton and Winnipeg. The newspaper is targeted toward the personal computer market. Companies can access a qualified computer audience by advertising in The Computer Paper.

THE COMPUTER POST

294 Ellen Street
Winnipeg, Manitoba R3A 1A9

Telephone #: (204) 947-9766
Fax #: (204) 947-9767

CONTACTS: Robert Li, Editor
Peter Yeung, Publisher

EMPLOYEES: 1-10

HISTORY:

The Computer Post is Manitoba's business and technology newspaper. Two local Winnipeggers, Robert Li and Peter Yeung, published their first edition in July of 1991. Their goal is to create a monthly technology newspaper that is easy and interesting to read with a concentration on business and efficiency gains available through technology. The paper has high local content celebrating Winnipeg businesses that are succeeding in the technology industry. The paper presents info on computer products and technology so people can apply this to their business and make their company more competitive.

CAPABILITES:

The Computer Post is for anyone that has to use computers in their day to day job routine. The Post also helps people in business and other organizations make smart decisions about what technology to buy and how to apply it. It also provides a medium that connects Manitoba's computing community and assists the users of this technology to do their jobs better.

The Post doesn't report everyday news, it analyses technological changes and predicts the effects this will have in the future. Different products and issues are covered each month but regular features include: FACE TO FACE interviews with a local personality involved in the technology industry; BUSINESS PROFILE highlights a Winnipeg based business succeeding in the technology marketplace., IN THE OFFICE reviews of products and technology applications that can make your office or business operate more efficiently and effectively, SPECIAL REPORT each month a technological topic such as office automation will be explored and extensively analysed, and BOTTOM LINE selling and marketing section broadly aimed at sales professionals in computer industries.

PRODUCTS AND SERVICES:

Anyone that has interesting and informative viewpoints on technology and business is encouraged to submit articles. Many of the Post's articles are written by local people. These articles are submitted from a great diversity of industries and many differing fields of expertise.

The Computer Post offers an opportunity to advertise to and reach a tremendous cross-section of managers, owners, and users from companies that represent every industry.

MARKET:

The average reader is age 37, male 86%, wage $37,850, university educated, 50% are management. Total readers are 25,000.

THE TORONTO-DOMINION BANK

P.O. Box 896
201 Portage Avenue & Main Street
Winnipeg, Manitoba R3C 2T2

Telephone #: (204) 988-2900
Fax #: (204) 943-7957

CONTACT: Mr. A. P. Beutel, Vice-President and Manager
EMPLOYEES: Over 100

HISTORY:
The Toronto-Dominion Bank was originally founded approximately 135 years ago and operates close to 1000 branches across the country. T-D Bank serves a vast cross section of communities, both large and small and employs close to 30,000 people.

CAPABILITIES:
Full range of banking and financial services.

PRODUCTS AND SERVICES:
A full range of banking and financial products.

MARKET:
Local, national and international.

THE WINNIPEG CHAMBER OF COMMERCE

500-167 Lombard Avenue
Winnipeg, Manitoba R3B 3E5

Telephone #: (204) 944-8484
Fax #: (204) 944-8492

CONTACT: William W. Draper, Executive Vice-President
MEMBERS: Over 100 (1550 corporations, 400 individuals)

HISTORY:

In 1873, a group of Winniepg business and professional people applied for and were granted a charter for The Winnipeg Board of Trade. Six years later, the Federal Boards of Trade Act was legislated in Ottawa, allowing local oragnizations to have national charters. The Winnipeg group obtained a national cahrter. In 1950, Winnipeg adopted a name change to Chamber of Commerce. Since 1873, the association, now known as the Winnipeg Chamber of Commerce, has experienced steady growth in size, scope, prestige and effectiveness.

CAPABILITIES, PRODUCTS AND SERVICES:

Mandate:

The Business Community: to be the voice of business on issues of common interest to the Winnipeg business community;

The Membership: to provide the members with services and opportunities to improve their ability to do business;

The Community: to provide leadership in the development of the community.

Policy Orientation: The Chamber's legislative submissions are designed to provide an accurate reflection of business thinking on issues of the day and are intended to represent constructive inputs to the formulation of public policy.

Policy Development: The policy positions of the Chamber are developed primarily at the committee level. The Chamber is also proactive developing representatives to government on matters that could positively enhance community growth.

Program Orientation: The Chamber develops programs, such as luncheons, seminars and breakfast meetings to provide educational informative events on issues or concerns to the business community.

TIP TOP ELECTRONIC SUPPLY

11-1391 St. James Street
Winnipeg, Manitoba R3H 0Z1

Telephone #: (204) 786-7788
Fax #: (204) 786-6530

CONTACT: Ian Blair, President
EMPLOYEES: 1-10

HISTORY:
Seven years in business, four years at present location.

CAPABILITIES:
Electronic parts distribution.

MARKET:
Manitoba, Saskatchewan and Northwestern Ontario.

UBITREX CORPORATION

370-435 Ellice Avenue
Winnipeg, Manitoba R3B 1Y6

Telephone #: (204) 942-2992
Fax #: (204) 942-3001

CONTACT: Kerry Thacher, President
EMPLOYEES: 11-50

SERVICES:
Ubitrex designs and develops Point-of-Care based nursing information products for hospitals. The systems are unique in their orientation to the nursing profession and are designed to increase the productivity of nursing work and to enhance the quality of patient care.

UNITEL COMMUNICATIONS

608-201 Portage Avenue
Winnipeg, Manitoba R3B 3K6

Telephone #: (204) 946-3582
Fax #: (204) 946-3543

CONTACT: William Bowes, Assistant General Manager
EMPLOYEES: 51-100

HISTORY:
Unitel is a new name for a company with a long history. As Canadain Pacific Telegraph, we were in the telecommunications business before telephones were invented. In 1980, Canadian Pacific and Canadian National became partners in CNCP Telecommunications.
In December 1988, Canadian Pacific increased its holdings to 100% of CNCP. In September 1989, Rogers Communications Inc. bought 40% of the company. CNCP changed its name to Unitel on May 9, 1990.
Unitel owns a nationwide communications system that has evolved over the last 100 years. It is now one of the most advanced networks anywhere.

PRODUCTS AND SERVICES:
High quality voice, data and facsimile network services, network consulting and design, long distance voice and data networks.

MARKET:
Local, national and international telecommunications users.

UNISYS CANADA INC.
PERIPHERAL PRODUCTS DIVISION

P. O. Box 861
51 Burmac Road
Winnipeg, Manitoba R3C 2P7

Telephone #: (204) 257-9100
Fax #: (204) 257-0540

CONTACTS: Jamie MacPherson, Manager, Business Development
Dan Card, Manager, Engineering
Chris Greaves, Manager, Product Assurance
Dick Dilawri, General Manager

EMPLOYEES: Over 100

HISTORY:
Since 1973, this facility has designed and manufactured computer peripheral equipment. To date, our innovative Engineering, Manufacturing and Quality teams have successfully introduced eighteen product lines; ten of these were designed by our facility.

CAPABILITIES:
ISO 9001 Certified Quality System, Electronic and Mechanical Design, Class 100 Clean Room Assembly, Printed Circuit Board Assembly, Cable and Wiring Harness Assembly, In Circuit Automated Testing, Real Time Functional Testing, Test Engineering, Industrial Engineering for "Just-in-Time" Manufacturing, Manufacturing Engineering, Flow Process Assembly, Electromechanical Assembly and Test, and Environmentally Controlled Burn-in.

PRODUCTS AND SERVICES:
Contract Engineering and Manufacturing Services for state of the art electromechanical products.

MARKET:
Our current market is primarily international. We are interested in developing both local and international markets.

UNIVERSITY OF MANITOBA
ELECTRICAL & COMPUTER ENGINEERING DEPARTMENT

Room 504 Engineering Building
Winnipeg, Manitoba R3T 2N2
Telephone #: (204) 474-9603
Fax #: (204) 261-4639

CONTACT: Steve Onyshko, Ph.D., P. Eng., Professor & Head
EMPLOYEES: 31-50

HISTORY:
A B.Sc. degree program in Electrical Engineering was first offered in 1907, however, the Department of Electrical Engineering in the Faculty of Engineering was formally structured in 1921.
The major changes in undergraduate studies activities occurred in 1951 when Engineering Physics was added to the B.Sc.(EE) program and, as recently as in 1982, as a new degree program in Computer Engineering was added (Engineering Physics was discontinued in the late 1960's). A full-time M.Sc. program started in 1953 and a Ph.D. program in 1967. Currently there are 28 faculty members and 13 support staff.

CAPABILITIES:
The Department offers undergraduate, B.Sc., degrees in Electrical Engineering and in Computer Engineering. Also, it offers M.Sc., M.Eng., and Ph.D. degrees. The Department conducts basic and applied research in the following areas: electrical energy systems, applied electromagnetics, VLSI circuits, electrical materials and devices, biomedical engineering, microelectronics and computers, and image processing and environmental optics.

PRODUCTS AND SERVICES:
Undergraduate and graduate education, and research and development.

MARKET:
University students and firms who may be able to make use of the research capabilities in the areas listed earlier.

UNIVERSITY OF MANITOBA
FACULTY OF ENGINEERING

Room 350 Engineering Building
Winnipeg, Manitoba R3T 2N2

Telephone #: (204) 474-9806
Fax #: (204) 275-3773

CONTACT: Dr. G.E. Laliberte, P. Eng., Dean
EMPLOYEES: Over 100

HISTORY:
The Faculty of Engineering was established at the University of Manitoba in 1907 by the University Council. Its initial grant of $9000 from the Government of Manitoba represented 60 percent of the University's budget. The first two departments were Civil Engineering and Electrical Engineering. Mechanical Engineering was added in 1947 and Geological Engineering in 1978. Agricultural Engineering has been affiliated since 1968. In 1982, Industrial Engineering was introduced as a part of Mechanical Engineering and Computer Engineering as a part of Electrical Engineering.

CAPABILITIES:
The Faculty of Engineering, as a professional school, is committed to providing the high quality educational experience needed for the practice of engineering. As part of the University community, it seeks to advance knowledge, through excellence in research and scholarship, and to transfer and apply knowledge for the benefit of society.

PRODUCTS AND SERVICES:
Undergraduate enrolment currently stands at 1350 students, within two percent of its maximum ever. The Faculty graduates about 200 engineers with bachelors degrees each year. Specializations are electrical, mechanical, civil, industrial, computer, geological and agricultural engineering. All seven programs are accredited. There are currently a record high 350 full-time and part-time postgraduate students. About 230 are enroled in Master's programs and 130 in Doctoral programs. Historically, about 60 postgraduate degrees are awarded each year.
The Faculty of Engineering carries out a broad range of disciplinary and interdisciplinary research. The Faculty's researchers compete for research grants and contracts nationally and have been very successful.
The Faculty of Engineering is involved in significant international programs in Indonesia (water resources) and the People's Republic of China (failure analysis).
The Faculty of Engineering engages in a significant community outreach activity much of which is described under the Institute for Technological Development(entry elsewhere in this directory).

MARKET:
The impact of the Faculty of Engineering is a global market. However, special efforts are being made to ensure that its programs are relevant to provincial and regional needs.

UNIVERSITY OF MANITOBA
INSTITUTE FOR TECHNOLOGICAL DEVELOPMENT

Faculty of Engineering
Winnipeg, Manitoba R3T 2N2
Telephone #: (204) 474-6200
Fax #: (204) 261-3475

CONTACTS: Ray Hoemsen, P. Eng., Director
Doug Strang, P. Eng., Special Projects Engineer

EMPLOYEES: 1-10

HISTORY:
Established in 1986, ITD is a cooperative venture of the University of Manitoba, the Manitoba Research Council, the National Research Council and industry. Located in the Faculty of Engineering on the University of Manitoba campus, ITD has been given a mandate to make it easier for industry to access the technological resources of the University and to assist in the transfer of innovations to the marketplace.

CAPABILITIES:
ITD facilitates technology transfer by acting as a liaison between industry, government and the University of Manitoba, such that large and small firms can benefit from university research and expertise. In many cases, ITD can "broker" clients with the most appropriate faculty member or organization able to meet their needs. Special effort is made to support cooperative research and technological development and assist University faculty and industrial firms to interact sufficiently to complete technology transfer. Inventories of the University's technical research capabilities have also been developed to allow efficient access to experts in various fields.

SERVICES:
ITD provides a number of services including: referring requests for research and development to appropriate experts; searching for sources of assistance; coordinating cooperative research; and locating students for summer or permanent employment for specific industrial needs. A technical information service, sponsored by NRC-IRAP, which ITD responds to specific questions from interested companies on a confidential basis. ITD acts as an intermediary for the Technological Information Services of Consumer and Corporate Affairs Canada (Patent Office) and the Inventors' Assistance Program of the Canadian Industrial Innovation Centre/Waterloo and operates the Engineering and Applied Sciences IndustrialAffiliates Program (EASIAP) on behalf of the Faculty of Engineering and the Faculty of Agricultural and Food Sciences.

UNIVERSITY OF MANITOBA
SCIENCE SHOPS

Faculty of Science
Winnipeg, Manitoba R3T 2N2

Telephone #: (204) 474-9410
Fax #: (204) 261-7548

CONTACTS: J.P. Svenne, Associate Dean
J. Lancaster, Supervisor

EMPLOYEES: 1-10

HISTORY:
The Shops were originally established in the Physics Department, primarily in support of the 50 KeV Sector-focussed Cyclotron. As funding of that facility was phased out, the Shops were amalgamated with the University's Central Instrument Facility and reorganized under the Faculty of Science as the Science Shops.

CAPABILITIES:
The primary purpose of the shops are to support equipment needs for teaching and research in the Faculty of Science. Work is also carried out for other units within the University. The Science Faculty partially subsidises the Shops, giving a low cost service to faculty members. A small number of outside contracts are also served by the Shops, at rates competitive with private industry.

PRODUCTS AND SERVICES:
The Shops are capable of original design, construction and testing of (often one-of-a-kind) original equipment for research use. Also performs repairs, upgrades, modifications of existing research and teaching equipment.

MARKET:
Department of Physics; other Science departments; TRIUMP Laboratories, Vancouver, B.C.; ohter University of Manitoba units; and the private sector ("high-tech" companies), primarily in Winnipeg.

VANSCO ELECTRONICS LTD.

1305 Clarence Avenue
Winnipeg, Manitoba R3T 1T4

Telephone #: (204) 452-6776
Fax #: (204) 452-7156

CONTACTS: Ed Van Humbeck, President
Gino Kost, Marketing Manager for Manitoba

EMPLOYEES: 31-50

HISTORY:

Vansco started in 1978, as a partnership between Ed and Therese Van Humbeck. Since then it has grown steadily, and is now a leader in its field. Vansco's focus continues to be on product development and manufacture. Its continous growth stems from a commitment to exceed customer expectations, in both product performance and on time delivery.

CAPABILITIES:

Cost effective manufacturing, including automated surface mount assembly, and a professional and efficient engineering group with almost 200 man years of product development experience.

Vansco's primary expertise is in the development and manufacture of custom electronics. Its customers are mainly other manufacturers, and its products include instrumentation and controls for:

On and Off Highway Vehicles - Instrument Panels, Transmission Controls, Turn Signal Flashers and many specialty products.

Agricultural Machines - Monitors and Controls for Harvesters, Seeders, Sprayers, and Sensors for Speed, Position, Pressure and Flow.

Controlled Environments - Controls for Plant Growth Chambers, Environmental Chambers, Controlled Atmospheres, Greenhouses and Livestock Confinement Rooms.

Powerline Monitoring Systems and Power Disturbance Recorders.

Vansco Computer Division produces a full line of high reliability IBM compatible personal computers.

PRODUCTS AND SERVICES:

CAD, CAM and computer aided engineering and testing are used extensively. All staff have acess to a company wide local area network, running mulit user, multi tasking software.

Production equipment includes computer controlled surface mount assembly and infrared reflow equipment, computer aided testing, and enviornmental test rooms.

A total quality management system based on ISO 9002 is in place. It includes extensive use of SPC and a company wide continuous improvement program. Vansco is a certified Ford Q101Supplier.

MARKET:

International with a focus on Western Canada and USA.

VISION ENGINEERING RESEARCH GROUP

435 Ellice Avenue
Winnipeg, Manitoba R3B 1Y6

Telephone #: (204) 942-2337
Fax #: (204) 943-9206

CONTACT: Geoff Taylor, President
EMPLOYEES: 1-10

HISTORY:
The principals in Vision Engineering came from the research arm of the largest turbine engine overhauler in the U.S. Background is in special products development for the Aviation Aerospace Industry. History includes: Top 100 Research and Development Award, as well as Design News, Excellence in Design award 1987. Most notable product was a Flying Boroscope used by NASA in all of the Space Shuttles.

CAPABILITIES:
Vision Engineering specializes in Technical Innovaitons in response to problems identified through the use of their Root Cause Investigation Process which highlights the variables associated with a process or operation. The variables are categorized, qualified and quantified for impact on such things as productivity, quality and safety. Technical solutions to the highlighted problems are then developed. The process has resulted in numerous niche products including a Force Sensing Array, FAX Security System and a Dual Purpose Reinforcing Rings.
Vision has the engineering, research and development capability to undertake a variety of applications of current technology or to develop new technology to meet current demands. With a wide range of experience ranging from Plasma Arc metal deposition to Vacuum Furnace Brazing, to computers and electronics, Vision Engineering brings a vast knowledge base to the process under scrutiny.

PRODUCTS AND SERVICES:
Vision Engineering has a small staff of engineers and technicians which can be supplemented by a network of engineers with specific talents for specific applications, however, consulting normally focuses on technical and ergonomic innovations.
The company with its association with the National Research Council has a camera based Vision Measurement systems and can measure tubes and parts to fine tolerances and import the data directly into CAD systems.

MARKET:
Vision's primary market is in aviation aerospace but work is done with local companies. The Force Sensing Array developed by Vision Engineering is marketed by Vista Med Inc. to a world wide medical clientele.

WANG IMAGING CENTRE

1600-363 Broadway Avenue
Winnipeg, Manitoba R3R 2X5

Telephone #: (204) 942-6420
Fax #: (204) 942-2836

EMPLOYEES: 11-30

WESTERN DATACOM INC.

246 Vernon Road
Winnipeg, Manitoba R3J 2V9

Telephone #: (204) 832-7931
Fax #: (204) 832-7931

CONTACT: Al Erickson, Manager, Winnipeg Branch
EMPLOYEES: 1-10

HISTORY:
The company began in Edmonton over ten years ago and adopted its present name in 1986. Daniel Somers, the President, has guided the operation from a one man operation out of a residence to an incorporated company that is on a firm financial footing and that consists of thirty employees in five different cities: Edmonton, Calgary, Kelowna, Vancouver, and Winnipeg.

CAPABILITIES:
The Winnipeg offices is mainly set up to do voice and data cable installations. However, WDC Edmonton has a Custom Cable Assembly Division, Component Sales Division and a Data Equipment Division in addition to the Installation Division. Our installations carry a 5 year warranty and include all types of cable from twisted copper to create fibre optics.

PRODUCTS AND SERVICES:
Custom Cables for all systems, quality components for all Data Communications applications, and installation of communications cable for data or voice.

MARKET:
All of Western Canada, plus with alliances in the rest of Canada, we can provide our services everywhere in Canada.

WINNIPEG 2000
WINNIPEG ECONOMIC DEVELOPMENT CORPORATION

Ste. 1100 - 200 Graham Avenue
Winnipeg, Manitoba R3C 4L5

Telephone #: (204) 944-2000
Fax #: (204) 956-2615

CONTACTS: Gordon Johnstone, Chief Executive Officer
Karl Fabian, Business Development Officer
EMPLOYEES: 11-30

HISTORY:
Winnipeg 2000 was formed by the City of Winnipeg in early 1990 to assume the responsibility of economic development for the city. The Leaders Committee was formed to provide the guidance and leadership needed to encourage and develop economic growth and revitalize our image locally, nationally and internationally.

CAPABILITIES:
One of the undertakings of Winnipeg 2000 is the development of a Business Directory Data Base that would list all businesses in Winnipeg paying taxes. Information would include contacts, products, services, markets, affiliates, size and S.I.C. code. Winnipeg 2000 will be the resource base for expanding the awareness of Total Quality providing administrative and library resource support.

WINTECH INC.

Box 20490
Steinbach, Manitoba R0A 2T1

Telephone #: (204) 326-2688
Fax #: (204) 326-5510

CONTACT: Howard Klopak, General Manager
EMPLOYEES: 11-30

HISTORY:
Wintech Inc. began manufacturing Electronic Ventilation Controls to meet the needs of the local agricultural community. The products are now sold throughout North America.

CAPABILITIES:
Wintech has a complete electronic production facility. We also have an R & D capability and do custom product development for customers. We specialize in agriculture related electronics.

MARKET:
Eastern Canada, Canadian Prairies and Mid Western United States.